

SOUTHERN TEXTILE BULLETIN

VOL. VI

CHARLOTTE, N. C., JANUARY 29, 1914

NUMBER 22

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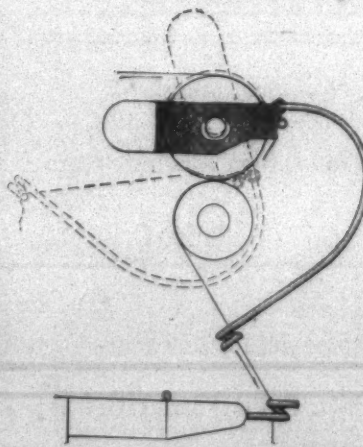


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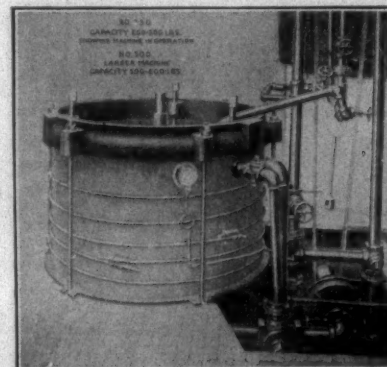
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SOUTHERN TEXTILE BULLETIN

VOL. 6

CHARLOTTE, N. C., JANUARY 29, 1914

NUMBER 22

Some Causes of Bad Spinning

It is well known that one of the causes of bad spinning is the quality of the cotton being used. The fibres may be naturally weak, or they may vary in length to such a degree that irregular and weak places are formed in the yarn which will not stand the strain of winding on the spindle, and it is quite a common excuse, on the part of those responsible, that it is bad cotton which is causing the bad spinning. I venture to say that this excuse is in many cases without foundation.

On going through my note book I find this entry. Went to Messrs. A's mill to inquire into complaint of bad spinning. This visit had been preceded by a letter saying "that the ring frames put in some months before were spinning very badly, and that the frames must not have been properly erected." On visiting the mill and examining the frames I found the spindles very dry and with an oxide on their points, and, on further inquiry, I learned that they had never been pumped or re-oiled since being put to work. I then proceeded to explain that to insure regular running and a long life in the spindles, they should have been pumped out and re-oiled after the first week's run, this to be repeated at the end of another month and then every ten weeks onward, the oiling being so arranged that a certain number of frames would come in due rotation. You will readily understand that the want of oil was retarding the spindle and reducing the twist per inch. The system of oiling I have mentioned causes the iron bolster and inner tube to become saturated with oil, and it is very surprising what an amount the soft cast-iron will absorb.

I have many notes in my book about irregular lubrication, particularly in regard to the oiling of top rollers and weight hooks. I have often noticed when standing near a spinning mule or ring frame that certain ends keep coming down, whereas others will spin right through a set. I have changed the rovings about, and yet the same end would still come down. On looking at the top rollers and weight hooks, I have found them dry and thus retarding the rollers; in some cases the hooks have become so worn that they have gripped the roller and thus prevented regular turning.

The oil does not require pouring on in such quantities as to saturate the leather, but in small quantities at frequent intervals. Many attempts have been made to invent a self-lubricating hook, but as yet without success. I would here say that two parts of a spinning frame should never be oiled, viz., the ring and the pokers, for, if oil is used in these parts, fly will gather and bad spinning and bad bobbins result.

There is one other little point I have found very useful in regard to oiling, and that is in connection with the traveler. When traveler are being made a small "burr" is formed on the points which touch the ring by the tool which shears the traveler from the coil of wire. This "burr" has a tendency to retard the traveler when first put in the ring, but if the travelers, before use, are put in a tin of light oil for a few hours and then placed on a tray to allow the oil to drain away, a thin film will be left which will assist the travelers at the start, give better spinning and a longer life. If a bitter substance be mixed with the oil it will prevent the operative putting the traveler in her mouth, which is a very bad practice to follow.

Some time ago I was called into a mill to examine into the cause of bad spinning and the formation of thick and thin places on a mule. When I examined the yarn I found it full of long thick places at irregular intervals. Before going to see the mule I knew this could only occur through having the top rollers badly covered, which, when I came to examine the rollers I found them badly grooved, and when the traverse motion carried the rovings into these grooves very little drawing took place. On taking some of the rollers out I found the leathers could be easily twisted off, a state of things which should never be allowed, as it should be impossible to do this on a well covered roller. My advice was to get some better covered rollers, which was done, and the trouble vanished. If, on gripping a roller with each hand and giving the covering a twist, the covering moves at all, reject it, the roller is badly covered.

Before examining my note-book further I would like to make some fuller remarks on this question of roller covering, as it is one which

affects good spinning and good yarn as much as any I know of. When you consider that drawing takes place by reason of the pressure of the top roller on the bottom fluted roller and that the material being drawn is weak and sensitive cotton fibres, you will see that anything which causes the surface speed of the top and bottom rollers to vary one to the other will cause irregular drawing, damaged fibres, and consequently weak and irregular yarn. Thus great attention should be paid to securing a roller neither too soft nor too hard, and as nearly true in its revolution as it is possible to get. Another point I would impress upon you is that when new machines have been running say twelve months, have them lined up. This I very strongly impress upon you.

Another case of bad spinning which I had to investigate was at a mill where the spinning frames were working alongside some roving frames. I have had cases of this kind on several occasions, and I have always found that the fly which comes from the roving frames gathers on the travelers and causes bad spinning.

Finally, in regard to the spinning rooms, and in fact to all rooms in the mill, do not have them too dry or too hot. You will know that when cotton is growing, it flourishes best in a warm humid atmosphere, and I have found that it is necessary for successful working to have the same conditions in the mill. I consider that if we could get the atmosphere the same as that of the lowlands of America we should get good spinning. I have often made the statement that it is possible to be taken blindfolded into a mill and be able to say whether the spinning is good or bad, because if there is a feeling of oppression from the heat, or a sense of dryness in the atmosphere, it is almost certain the spinning will be bad. Whereas, if one feels comfortable, and the atmosphere has a moist feel, the spinning is almost certain to be good, and I say to you, very definitely, that a humidifying apparatus should be installed in every room.

Coming now to the card room and blowing room, I would say that the majority of remarks made with regard to the spinning rooms apply with equal force to the preparation

of the rovings and laps, viz., attention to lubrication, covering of rollers, humidifying, etc., at the least to an equal degree, because when a roving has left the card room it cannot possibly be improved whether good or bad. A good roving can be made into a bad yarn, but a bad roving into a good yarn, never!

One note I often find in my book and that is the desire on the part of many carders to make a hard bobbin, and many times I have had to point out the folly of this. A well shaped solid bobbin should be aimed for but not at the expense of stretching rovings and extra twist. To test whether the winding is too tight piece up an end and allow it to lie slackly between the rollers and the flyer top and note whether this slackness is taken up quickly or gradually. If quickly, you may say at once the winding is too tight, and a change should be made.

There are many other points with regard to the preparation of frames, but time compels me to pass to the next machine, that is the drawing frame. I have not had many complaints about this machine, but as it is the greatest evener in the mill great attention should be paid to its adjustment and a system of daily wrappings should be adopted. I remember one case where very irregular results were being obtained from one particular head of finishing drawings, two of the deliveries were producing slivers quite different from the remainder, and for some time I was absolutely beaten as to the cause, when one day it struck me to examine the trumpets on the coilers, and, in doing so, found the two faulty ones were of different diameters in the hole, and on inquiry, I found that one of the mechanics had been reaming them out because they were a little rough. What appeared a small matter to him had given rise to all the trouble. A new set of trumpets were put in and the trouble vanished.

Coming now to the cards, we arrive at a point in cotton spinning which is recognized, and rightly so, as perhaps the most important in the whole series of operations. It has often been said that a good carder is a jewel, and from my experience I would say that I agree with that, but it should be remem-

(Continued on Page 16)

Efficient Card Room Methods

(Continued from last week)

Setting the Mote Knives.

Let us next consider the settings of the mote knives. Most writers, text books and even many builders, give the setting at this point as 12-1000 for the top knife and 17-1000 for the bottom one. It is claimed also that the mote knives greatly assist in removing the heavier impurities such as sand, seed, leaf, etc.

I want to point out here, what may be a surprise to many carders, that mote knives in some cases are useless. That I am not alone in the above belief, is proven by the fact that many carders at the present time are using only one knife instead of two, and at the same time, they will tell you that this one knife is not used so much to assist in removing the heavier impurities, as to check the large tufts of cotton that may be occasioned by allowing a lap to run out. I am not against the use of mote knives, as I have two under every licker-in on my cards, but my object in pointing out the above, is to point out to the readers, that when you have a dirty web the mote knives have little to do with this trouble. If the reader be a carder, let him make the following tests, (1) set the mote knives as above or your own way if you will, and run the card for a certain length of time. (2) remove both knives and pack the back of the card so that as little air as possible will enter. Run the card the same length of time as in the first case and weigh the dropping in each case, and very little if any difference will be found.

If the above test is made and found as I claim, then in order to obtain a clean web, it is more important to pack the back of the card, instead of wasting time setting the mote knives to the licker-in, or changing their angle.

That the mote knives help in checking large tufts of cotton can not be disputed, and for this reason I think two mote knives better than one, as there is nothing more injurious to the fillet and flats as large tufts of cotton being allowed to enter the card.

Large tufts of cotton will also injure the licker-in screen (at the back and in some cases the flats have been broken).

Setting of Licker-in to Cylinder.

Let us now consider the setting of the licker-in to the cylinder. At this point, you will find many writers and carders advocating the setting as close as 7-1000 gauge. But why set so close at this point? We can give a reason for setting at 12-1000 gauge, but it never has been explained to the writer's satisfaction, why a closer setting is made.

The reason why I advise setting the licker-in at 12-1000, is simply because there is no combing action at this point. Again, if the construction of the licker-in teeth and points to the square foot are compared with those of the cylinder, also the surface velocity, we can arrive at no other conclusion, but that the cylinder has every advantage of

removing every fiber of cotton from the surface of the licker-in when set at 12-1000 gauge. To prove what I say above, take a large portion of raw cotton and pass it over the surface of the licker-in in the opposite direction in which the saw teeth point so as to charge a number of teeth with cotton, then pass the hand in the same direction as the teeth point, and it will be seen that the stock can be removed by the hand from the surface of the licker-in. The surface speed of the licker-in is about 1000 feet per minute. Surely, the wire on the cylinder traveling at a speed velocity of about 2,200 feet per minute, is more effective than the hand.

It should therefore be seen, that a close setting is not necessary at this point. On the other hand, if the setting at this point is as close as 7-1000, when large tufts of cotton escape the mote knives, much damage is caused by disturbing the setting of the licker-in, that will cause the teeth to wear through the licker-in screen, and also injure the flats and cause streaks to appear thereon. In some cases, the cylinder fillet is injured to such an extent as to require recovering. Ask most carders why the spirals of the licker-in fillet are saw toothed, and in most cases you will find that they are unable to explain the true reason. The first licker-in introduced consisted of diamond point wire, and it was discovered that the points of this wire would take much of the stock around a second time, which of course, injured the stock and made it fluffy to a certain extent and caused the production of a weak yarn.

So for this reason, licker-in fillet was given its present formation, which goes to prove my above argument that the stock will not be taken around a second time even when set at 12-1000.

Flats Charged With Stock.

A close setting between the licker-in and cylinder is responsible in most cases for the flats becoming charged with stock, because owing to such a small space at this point, if the sheet of lap be bulky or in tufts, certain portions of the sheet are forced to the foundation of both the cylinder and flat wire. If the flat wire has contracted, become rusty or has been ground heavily, the stock will remain in the foundation of the wire on the flats, and we have the trouble known as charged flats. For the benefit of the readers, I am now going to give my own method of cleaning and keeping flats clean.

As a rule, burnishing rolls are found in almost every card room, but on a rack instead of being in use. Take one of these rolls and remove the fillet, and then rewind the same fillet on the same roll again, but instead of having the coils touching one another as in the first case, wind the fillet on more spiral, have every coil at least three inches apart. Set the roll to the flats so that the burnishing wire will almost touch the foundation of

the wire of the flats. Have the pulley on the end of this roll on the driving side of the card, and change the pulley on the flat cleaning brush also to the driving side of the card. Next, make a band that will circle the pulley on the roll in question, the pulley on the flat cleaning brush and the grooved pulley cast with the driven tight pulley on the card. Cross the band at the pulley driving the roll so as to give it the same surface speed direction as that of the grinding roll. By the above arrangement, the flat cleaning brush will be driven opposite to its regular direction and at the same time at a much greater speed. It may be found a difficult matter to remove the impurities the first time, owing to the flats having been in a charged state for years.

In such extreme cases, the band should be crossed at the pulley of the flat cleaning brush, and made straight at the pulley of the roll in question so as to drive it in the opposite direction to that of the grinding roll. By the above method, the impurities are loosened, and when the direction of the roll and the flat cleaning brush are changed again as in the first case, all the impurities will be removed.

When you have clean and well-ground flats, the combing efficiency of your card is increased. The above device should be placed on the card before grinding, and not disturbed until all flats are cleaned.

In most cases, the cause of knotty cloth in a cotton mill is due to dirty flats and improper stripping of the cards. I have found in most mills that even after stripping the cylinder is still somewhat charged with stock, especially from one to four inches on each side of the cylinder. The above defect has been the cause of making thousands of yards of cloth seconds, especially in mills making shade cloth, because such a cloth is exposed to the light more than any other kind. The finding of the above defect has caused many superintendents to have a roll attached to the office window so as to pass over it, every defective yard of cloth returned to the mill. Such a practice carries much weight with the overseers, because, when the cloth is shown it really appears worse than what it really is.

It was discovered years ago, that in order to strip the cards properly by means of a revolving brush, the fillet used to cover said brush must contain much less wire to the square inch than the fillet on which it is called to act. This was a step in the right direction, because it gave ample room for the stock to enter the brush.

Best Type of Card Stripper.

But little attention was given at that time to the angular knee in the wire which was and is to-day the chief cause of poor card stripping. All practical carders know that the angular knee found in all cotton card clothing offers much resistance to the stock, which prevents most of it finding its way to the bottom of the wires. The above

is a fact which can be easily proven by inserting a portion of stock by hand between the wires.

It will be found, owing to the numerous number of wires to the square inch, and the construction of the wire forming an angular knee, very difficult to enter the whole partition, and that after it is inserted, it will be found just as difficult to remove.

From the above, it can be seen that the angular knee found on the wire of any stripping brush should be removed, because it will offer much resistance to the stock entering the brush freely. There is a brush on the market today in which the wire instead of having an angular knee is rounded, and the number of wires to the square inch has also been reduced.

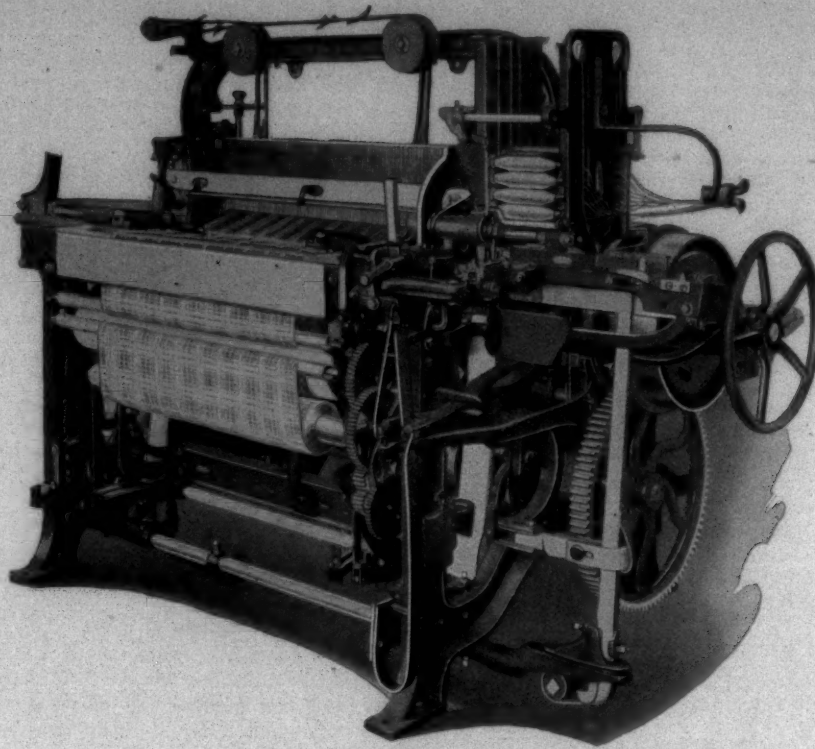
The removing of the angular knee on the stripping brush has proven a great improvement for many mills (especially the Southern mills), where a heavy sliver is run on the cards. The wire being rounded at the knee allows the stock to go down deep to the bottom of the wire, and offers very little resistance to the hand card when stripped by the stripper. This brush has stripped as many as three cards without itself being stripped, but, in order to get full benefit the stock should be removed from the brush after the stripping of each card.

The setting of the flats is also very important, and, like the setting of the feed plate, mote knives, and licker-in to cylinder, is much misunderstood.

Many writers of the present time give the following settings: At the first setting, acting upon the stock at 11-1000; at the second point 10-1000; at the next point 9-1000; at the next two setting points 8-1000. Others give a different number of gauge but most writers of late do set and advise to set farther away at the first setting point, first acting upon the cotton; but all they give us is the settings, they never give us reasons, and many young students accepting this theory as a rule, set as above and let it go at that. The only reason the writer can give for this rule, is that some worsted overseer conceived the idea that cotton could be treated the same as worsted.

Flats should be set at every setting point at 10-1000 gauge, because every flat should do the same amount of work, and flats are not stationary. So if we set away at the first setting point to save the first flats or stock, a great mistake is made, because if it is to save the wire on the flats it is only a matter of the flat traveling a few inches before it gets the bulk of the cotton. The licker-in conveys to the cylinder a certain amount of stock to be passed under the action of the flats, and when the first flat is set away from the cylinder, the flats at the last setting point are called on to do the bulk of the work, in other words, the amount of cotton taken from the licker-in has to pass in

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certain space, and that the flats nearest the cylinder (the last working flats at the front of the card) will get the bulk of the work, no one can deny. By setting the first flats away at the first setting point, the working carding surface of the cylinder is reduced, and the only excuse that can be offered for such a setting is that the fibers are in a tangled state and that the combing at this point should be gradual. This is all theory, and if the reader will closely follow what I say below, he will admit that much injury is caused to the fibers by this so-called progressive setting. When flats are set, the structure of the cotton fiber should be considered. Its hollow, spiral or collapsed tubular form, with its delicate waxy walls, can be injured much by too close settings.

For the above reason when you set closer than 10-1000 gauge, the work is made fluffy, and the yarn is of course weaker, but cleaner. Some mills set as close as 3-1000 gauge at each flat. Then they wonder why the yarn is so weak when using the best of stock. The reason is that when you set so close you strip the majority of the fibers of their waxy wall, which make them light and fluffy.

Even with a setting of 10-1000 the work is made fluffy, but of course 10-1000 is the maximum limit that can be allowed between the flats and cylinder and at the same time comb and clean the stock.

The modern revolving flat card is constructed so as to secure the largest per cent of production pos-

sible. To attain this object, the manufacturers have decided that 165 revolutions per minute of a 50 1/4-inch cylinder (including clothing) is the proper limit, which is around 2,000 feet velocity per minute. This limit is set on account of the centrifugal action on the cotton fibre. Although it is certainly true that the velocity of the cylinder is so great that the fibers, if left at liberty, will tend to be thrown outwards, too much stress must not be laid upon this point.

The cylinder having a surface velocity of about 2,000 feet per minute, it should be plainly seen that when the fibers are drawn past the space of one and three-quarter inches (from heel to heel of each flat) that it seems unreasonable to ask anyone to believe, as theory tells us, that the fibers held by the cylinder wire and to a certain extent raised from the surface, are subjected to the combing action of the superposed teeth, their free portion being drawn along the points of the flat, and thus cleansed. The theory that the flats are caused to assume an angular position relatively to the cylinder, so that the free ends of the fibers will strike the toe of the flat and be drawn through the wire teeth on each flat is wrong in practice, for with material as light as cotton, it is impossible for the free ends of the fibers to strike the toe of each flat, receive a combing and be ready to strike the toe of the next flat, and when it is borne in mind that the cylinder is traveling at a speed

velocity of about 2,000 feet per minute, and the free ends of the fibers are traveling at almost the same velocity (depending on the grip the cylinder retains upon the ends of the fibers) passing a space of 1 3/4 inches.

One point that should be considered on the different makes of cards is the comb box, which gives more trouble after years of wear than any other part of the card, especially if the parts of which it consists are not adjustable. Most comb boxes consist of an eccentric revolving inside of fork shaped arms which impart vibration to the comb. As wear takes place and causes the slightest play to exist between the eccentric and fork-shaped arms, a second vibration is thus created, which in time will loosen the comb posts that hold the blade of the comb, or break the comb with the result that the doffer comb blade is allowed to come in contact with the wire on the doffer, thus not only breaking the wire on the doffer, but also injuring the comb blade to such an extent as to require replacing. When new cards are purchased, precaution should be taken in order to select the best type of card having the best comb box. Be sure that the fork-shaped arms can be adjusted as the eccentric between the fork-shaped arms wears.

Of late, many carders are reducing the weight of their drawing sliver by reducing the card sliver and speeding up the doffers on the cards and the front rolls on the

drawings in proportion to the reduction of the slivers so as to turn off the same production. The above is a good point, and let me predict, that the time is not far off, when we will not find in any mill, where the finished drawing sliver will exceed fifty grains per yard.

However, in making radical changes like the above, a problem many times confronts us when we least expect it. I received a letter very recently from a young carder telling me that he was troubled with the front top leather rolls jumping. He said, that he changed the weight of the drawing sliver from seventy to fifty grains per yard, and increased the speed of the drawing front rolls from 350 to 450 revolutions per minute. He further said, that when the front rolls were making 350 revolutions per minute, that no jumping whatever could be noticed, but since the speed was increased to the above proportion, that nearly every roll showed more or less vibration.

This is another trouble that is little understood by many, although the remedy is very simple. The only way to cure it is to hang all front roll weights on springs or strong banding so as to destroy the vibration.

Canadian Textile Journal.

"Pa, what is a near-humorist?"

"A near humorist, son, is a person who says, when he finds an oyster in a stew, 'Well, well, little stranger, what are you doing here?'" —Birmingham Age-Herald.

Care and Operation of Roving Frames

Contest Winners.

Last week we gave the vote of five judges and since then have received the vote of one other while the other judge reported that in changing his position he had been unable to follow the contest closely and could not make a decision.

The vote of Judge No. 2 was through a typographical error printed incorrectly last week.

The winners will have to be decided by the vote of the six judges which were as follows:

Judge No. 1.

Best—"Crescendo" (No. 6).
Second—"Practical" (No. 3).
Honorable Mention to "Roving" (No. 30) "Experience" (No. 17), "Rhapsody" (No. 18) and "Cleaner" (No. 37).

Judge No. 2.

Best—"Little Jim" (No. 23).
Second—"Learner" (No. 32).
Honorable Mention to "J. E. S." (No. 34), "W. G. E." (No. 2), "Practical" (No. 3), and "Piedmont" (No. 40).

Judge No. 3.

Best—"Pat" (No. 29).
Second—"Experience" (No. 17).
Honorable Mention to "Uno" (No. 4), "Brush" (No. 15), "Piedmont" (No. 40) and "Learner" (No. 32).

Judge No. 4.

Best—"Roving" (No. 30).
Second—"R. S. H." (No. 24).
Honorable Mention to "Little Jim" (No. 23), "Learner" (No. 32) and "W. S." (No. 14).

Judge No. 5.

Best—"Roving" (No. 30).
Second "Profile" (No. 1).
Honorable Mention to "J. E. S." (No. 34), "Booster" (No. 37) "Piedmont" (No. 40) and "Experience" (No. 17).

Judge No. 6.

Best—"Roving" (No. 30).
Second Best—"Sidecliff" (No. 22).
Honorable Mention to "Little Jim" (No. 23), "Piedmont" (40), "Inter-Hand" (No. 25).

According to the rules of the contest each vote for first place counts 1 vote which each vote for second place counts 1-2 vote.

The vote therefore stands:

Roving (No. 30)	3 votes
Crescendo (No. 6)	1 vote
Pat (No. 29)	1 vote
Little Jim (No. 23)	1 vote
Practical (No. 3)	1-2 vote
Learner (No. 32)	1-2 vote
Experience (No. 17)	1-2 vote
R. S. H. (No. 24)	1-2 vote
Profile (No. 1)	1-2 vote
Sidecliff (No. 22)	1-2 vote

Substituting the names of the writers for the assumed names we have

Jno. Curwen, Demopolis, Ala.	3 votes.
John W. Long, Charlotte, N. C.,	1 vote.
H. R. Bolton, Roberdel, N. C.,	1 vote.
J. A. Parker, Greenville, S. C.,	1 vote.
C. M. Stoy, Anniston, Ala.,	1-2 vote.
S. J. Bishop, Spartanburg, S. C.,	1-2 vote.
G. B. McCrackan, New Orleans, La.,	1-2 vote.
R. H. Singleton, Morgaton, N. C.,	1-2 vote.
M. C. Carnes, Jacksonville, Ala.,	1-2 vote.
C. C. Tate, Cliffside, N. C.,	1-2 vote.

We therefore announce:

Winner of First Prize

John Curwen
Demopolis, Ala.

Tied for Second Prize

John W. Long, Charlotte, N. C.
H. R. Bolton, Roberdel, N. C.
J. A. Parker, Greenville, S. C.

We have mailed checks for prize money to these gentlemen and congratulated them upon winning such a contest.

Those who were given honorable mention by the judges were as follows:

J. F. Burgess, Calhoun Falls, S. C.,	(by four judges).
G. B. McCrackan, New Orleans, La.,	(by two judges).
J. E. Shaw, Enoree, S. C.	(by two judges).

E. G. Waits, Goldville, S. C., (by two judges).

S. J. Bishop, Spartanburg, S. C., (by two judges).

J. A. Parker, Greenville, S. C., (by two judges).

John Curwen, Demopolis, Ala.

W. W. Becknell, Rome, Ga.

A. B. Brown, Belmont, N. C.

C. M. Stoy, Anniston, Ala.

O. H. Witherspoon, Raleigh, N. C.

No. 15 (name withheld by request).

Wm. Shaw, Jamestown, N. Y.

W. I. Henson, Greenville, S. C.

D. C. Barnett, Kankakee, Ill.

Guessing Prize.

We offered a prize of \$2.00 to the first man who guessed the article that would win first prize and we find that only one man made the correct guess. We therefore announce:

Winner of Guessing Prize

John W. Trigg
Huntsville, Ala.

Mr. Trigg is overseer of weaving at the Merrinack Mills, Huntsville, Ala., but he beat all of the carders in picking out the winning article and received the \$2.00 prize.

The number of guesses received for each article were as follows:

G. B. McCrackan (No. 17)	5
A. B. Brown (No. 38)	4
Wm. Shaw (No. 14)	4
P. B. Parks (No. 27)	4
W. P. Hurt (No. 31)	3
H. C. Mason (No. 19)	3
M. C. Carnes (No. 1)	2
G. R. Brook (No. 11)	2
J. F. Burgess (No. 40)	1
W. W. Byars (No. 12)	1
J. W. Outz (No. 8)	1
R. E. Perkins (No. 20)	1
W. J. Tallent (No. 21)	1
Jno. Curwen (No. 30)	1
J. L. Davis (No. 36)	1
W. W. Becknell (No. 18)	1
Jno. W. Long (No. 6)	1
D. C. Barnett (No. 25)	1
R. H. Singleton (No. 24)	1
J. A. Sorrell (No. 35)	1

The number of articles which received guesses indicates the wide difference of opinion which always exists during a contest of this kind and we doubt if any two sets of judges would decide alike.

The system which we use is as fair as can be devised for each judge decides independent of the others and without knowing the names of the writers or even the names of the other judges.

This has been a great contest and those who failed to win should feel that they have been benefited by taking part. We are republishing this week the articles which won the prizes.

Winner of First Prize.

By JOHN CURWEN, Demopolis, Ala.

The subject selected for this contest is undoubtedly a very useful and interesting one. There is no machine in the whole spinning process which, to obtain the very best results, requires as much careful and delicate handling. I grieve to say, however, that it is not so thoroughly understood by many of the section and second hands as its importance really demands. With a view of bringing before your readers my idea of care and operation of roving frames, I have entered this most interesting contest.

To get a slubber, intermediate, roving or jack frame in good condition, and to know for a fact that it is in good order, it is a good plan, and one adopted in most up-to-date mills, is to overhaul one or two frames each week. In overhauling a machine, the system to which I have been accustomed to follow is given below though it may seem to some a rather lengthy process. It may, however, be shortened by anyone who prefers to have a poor job done, or who can not afford the time which may be lost by the machine. There is no doubt that a "thorough" job lengthens the life of the machine, saves power and produces results scarcely credible.

Begin by stripping the creels of pegs and bobbins, take out the leather rolls, ungear the steel rolls, take them apart in sections and remove to a convenient place. Then have them thoroughly scoured, rubbing down the rough places with pumice stone, afterward with whitening and clean hard waste, and lay them carefully on one side until the frame is ready to be put together. Take off all spindle and bobbin gears, have them well cleaned. Some carders boil them in a strong solution of potash. Clean out all the bolsters with a mop and remove all damaged or broken ones. Have

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the spindle and bobbin gear shafts well cleaned and broken or damaged ones replaced. Take out all the automatic gearing for cleaning and examination, jack shafts, compound horse head, etc. Now have everything that is left on the machine well cleaned up in order that you may see what you are doing. Now level the machines, first at the ends, and then from end to end, taking each alternate sampson then back with the other sampsons. Throw a line across the front rolls at the end, place a spindle at each sampson in front line of spindles with one also at each end; throw a double line across the spindles so placed. These lines show any point at which your frame is out of alignment.

Having gone so far, you are now prepared for other matters. Level the carriage and examine the carriage slides and see that none are binding, as each slide must be perfectly easy and plumb. Now is the time to examine all working parts, spindle shaft and bobbin shaft bearings, couplings, broken gearing, etc., replacing and repairing wherever necessary. Examine the compound and if it happens to be all right, so much the better, but if it is not all right, have it fixed. Whatever is wrong, and wherever, now is the time to attend to it. Try every nut and screw, bobbin and spindle shaft gears at end of the frame, in short overlook nothing, but subject everything to the closest scrutiny. Having leveled, aligned and overhauled everything for any defects, and given things a thorough cleaning, you may now commence to assemble the parts. Place all the spindles, after examining them for crooked and worn ones, in their places. Secure a double line of string and place it from end to end of spindles, drawing it tight to prevent sagging. Place the string in the same groove or ring on top of spindle. Now commence at one end of the frame and by means of washers, if necessary, raise all the low spindles. If the frame has been running a long time, some of the foot-steps may have become worn. If the foot-steps cannot be raised, then replace it with new step. The spindles can be set at the same time they are being brought up to line. Each spindle ought to turn easily when the carriage is at the bottom of the lift. Low spindles make bad bobbins, tight spindles interfere with the changing of the carriage and often are the cause of broken gap gears and other parts of the changing motions. Have all flyers balanced, fingers attended to, socket cleaned out and eyes picked out. It is a good idea to have a set of blocks to block the pressers. In gearing up spindles, avoid setting too deep, on the other hand get them enough. There is the least bit of slight-of-hand in setting spindle and bobbin gears. The two gears should just meet and in drawing the finger across them, you should not be able to feel the teeth. I have seen so many gears ruined by careless or indifferent gearing that I make no apology for drawing attention to this seemingly simple item. Put in the shell rolls and space them if necessary. Spacing, like draft and twist, is governed by circumstances. As a basis however, the formula is one-sixteenth inch longer than the staple between the first and second rolls, and an additional sixteenth. These spaces, I may say, I have not found practical, and except in a few cases, one-eighth is not too much space to allow. The overseer will generally give the necessary gauges for spac-

ing. Pull down the cap bars, set front line of rolls, in a perfectly straight line a little in advance of the bottom steel rolls, the second and third line at their proper distances apart and parallel with their under roll. Line up the creels and be careful the creel pegs do not penetrate through and stick out the creel board, for they may come in contact with the bobbins placed on the creel and cause the ends to break back, producing single roving. Examine the creel pegs and remove faulty ones. Get behind the machine and replace all parts and automatic motions that were left in frame. See that everything is properly adjusted and works smoothly, freely and easily. Look at the cone drums, see that they are parallel and the ends set true. In placing the top leather rolls in position it is an economical plan to select very best of the back and middle rolls, and put them in the back line of rolls, placing new ones in the middle. Indeed, I have found it beneficial in putting in few leather rolls to discard the back row and place the middle row in the back and new ones in the middle. This gives good rolls always where they are most useful. If shell rolls are used for the front, they must be measured with calipers to insure shells of equal diameter being placed upon one arbor, or bad work will result. See that the roll traverse is in working order for a stoppage of the traverse will very soon channel and destroy top leather rolls. After you have every thing ready and are about to start up the frame, which, as, I may say, been rejuvenated, you must look after the winding or tension. I wish to state right here that there has been, and will continue to be, I suppose, until the importance of correct tension is realized, more irregular yarn by carelessness in this matter than by any other single cause in cotton spinning. Be sure to have the ends all wrapped alike both on the flyers tops and around the fingers or presser. The number of wraps is optional, but any increase or decrease from the usual number will materially affect the winding and necessitate a change of tension gear. Care must be taken that the ends are not too tight at the beginning of the doffing. When the carriage has made its first change and the ends are bit loose when it comes to the bobbin you may rest assured that you are not winding too tight, and provided you have on the correct tension gear, the frame should run smoothly without any difficulty until doffing time. The cone belt guide can be moved either one way or another to meet emergencies of too loose or too tight winding. If this fails, change the take-up gear on the bobbin cone drum. In creeling it is now almost universally accepted that it is no longer an evidence of good carding to run two full bobbins together in one end at the front, but rather a full and a half bobbin together. The idea is that more even stand of roving is produced because of the difference sometimes contained between a bobbin when full, half full and nearly empty. The limits of this paper prevents me from giving the reasons for many of my suggestions, but the intelligent and inquiring reader will probably be able to think for himself.

The important part of oiling should not be neglected. Oil loose boss rolls every two weeks, back and middle rolls three times a week, bolsters every morning at first doff, and spindle foot-steps every two weeks. A good well bodied oil should

be used, as it is false economy to use a cheap oil. Pick top clearer boards two to five times each day, pick and clean leather rolls every week, on coarse dirty work, three times a week. The practice of fanning off should be depreciated. The roll beams should be wiped and flyers picked by hand at and previous to doffing. The section or second hand ought never to change a tension gear unless fully certain that it needs it. The cry of the help must always be taken with a pinch of salt. If it is only one out of a number of frames, the others being all right and producing the same hank under similar conditions, the fixer may be sure there is something else causing it, let him investigate.

In making any dispositions or making any new rules for improving the work or discipline, it is a good thing, and one that I have successfully worked out, to take the help into your confidence and give them reasons. By explaining anything to the help, especially when there is likely to be a kick through ignorance, in a simple and intelligent manner, they become interested and seeing the matter in the same light that you do usually end by performing their duties with more cheerfulness and understanding and as a consequence become more efficient. Every unit of efficiency is a step upward and it therefore behooves every foreman in charge of help to educate them by giving them reasons for everything we have occasion to draw their attention in any carelessness or neglect on their part.

Roving.

Tied for Second Prize.

By J. A. PARKER, Greenville, S. C.

Roving frames are composed of four processes, slubbers, intermediates, speeders and jacks, though all cotton mills do not use the four processes. The number of processes used depends on the numbers of yarn being spun. Counts from 1s to 4s use one process, 4s to 8s two processes, 8s to 40s three processes, and above 40s four processes are used. Now as the roving is in a prepared state for making yarns when it comes from any of the processes, we will confine this article to the third process, as the operation and calculations for all of the four are on the same basis.

The oiling is an important factor. All fast moving parts should be oiled once a day. The compound should be oiled twice a day. If solid top rolls are used on the back and middle lines, they should be oiled twice a week, three or four drops on each saddle. If the front line of top rolls are shells on plain mantles, they should be oiled once every two weeks. The steps should be oiled twice each month. If ball bearing top rolls are used they should be oiled every three months. All cleaning and oiling should be done by a very rigid system and not left to the discrimination of the operatives. At the end of every two weeks, on Saturday, the front lines of shell rolls should be taken out mantles oiled and put back ready for the weights to be hung on Monday morning. The rolls should be cleaned Tuesdays and Fridays. The oiler should follow soon after the cleaning is done and oil the two back lines of top rolls. The steps should be oiled by the oiler, so many frames each day, so as to get around every two weeks. All gearing should be cleaned from the tension gear to the head of the frame thoroughly each week, and

from the tension gear to the tail end of the frame, should be brushed down twice a week. No fans or flaps should be used, as the short line or drippings of foreign matter which settle on the roller beams while the stock is passing through the rolls, will be blown back on the stock, causing lumps and gouts on the yarn. Roller beams, stand, etc., should be wiped twice a day with stripper cotton from the cards. Spindles should be oiled three times a week, when the first set is changed in the morning. The operatives should be taught to put enough oil at the top of tubes, so some will run over and run down the tube to the bobbin gears. The creels should be wiped every Friday afternoon, and not fanned out on Saturday, as is usually the case. Spindles should be picked every day. Dirty spindles will cause the frame to run heavy when the carriage is at the bottom. A frame should never be run with a slack belt or slack overhead counter belt. It allows the frames to run with a jerk, causing stretched roving which weakens the yarn. The long train of gearing from the bottom cone to the bobbins has quite a bit of slack. Ordinarily the bottom cone has about three-quarters of a turn play, which is an evil which cannot be overcome on account of the differential motion which governs the speed of the bobbin, giving the stock a uniform tension while passing from roll to bobbin. For those reasons a frame should run with a steady pull. Roving guides should be made to traverse the rolls within one-quarter inch of the end. If they are allowed to run otherwise, the middle roll will become creased and allow the stock to slip from under the roll, causing uneven stock. The middle line of top rolls should be changed once a year. Place new rolls on middle lines, the old rolls being placed in the back and run there a year before being recovered. This plan will always keep both lines of back rolls in good shape.

The fixer should look over the entire number of front rolls in the room each week, replacing the inferior ones. This will add greatly to the running of the frame. It is a very common practice among operatives to lap the ends of roving when creeling. They should be taught to splice the ends from tip to tip. No roving should be cut off bobbins, as this will get the mill filled with butt staple through the various processes, causing uneven drawing out. Much care should be used in doffing. Each presser finger should have three wraps, otherwise there will be a lot of soft, spongy and stretched roving going to the spinning room. The operatives should be taught to clean top spindles while doffing, as there is usually a small ring of cotton accumulated between the tube of flyers and shoulders of spindles and often it catches on the top of the spindles when throwing the roving and choking flyer tube, causing flyers to rise up during the doff, and causing bobbins to tangle. In threading up the flyer enough roving should be wound off, so when the splice is made at the steel roll, 5 or 6 inches can be pinched off where the roving was twisted in through the hands as the moisture off the hands glues the staples together, not allowing it to draw out in the spinning roll. This is commonly called hard ends.

Steel rolls should be picked out every Thursday, this being attended to by the section man.

It is a good idea to have a small boy or girl to do all the roving marking, stopping the frames after they have made several changes and mark the roving close up the barrel of the bobbin, showing exactly where the roving is being made.

Roller settings plays quite a part in the quality of the roving, and also in the running of the frames. I will make some suggestions concerning it. On very heavy hank roving, low grade and short staple, rollers should be spread open to one-quarter to three eighths of an inch more than the length of the staple, as you are drawing the body of the stock. On finer hank, 2, 3, 6, 7, etc. on good middling one inch staple, the rollers should be set as close to the bites on end of staple as possible. This applies to solid back top rolls and friction shell roll on front lines. Ball bearing top rolls can be set as close by one-sixteenth as the friction shell. Ball bearing rolls on close settings will turn the stock loose and it will come through whole or draw unevenly. A very accurate and simple device for getting distances between bites of rolls, is to place a narrow strip of soft paper under the top roll and leave it overnight with the rolls weighted down. When removed, the impression of the flutes will give the exact bite of rolls. One fine counts we draw the individual staple and not the body. Close rolls setting on very coarse roving will draw lumpy.

The most vital part of a roving frame is the tension. After the twist is laid in the roving the slightest slip in the staple will cause weak yarn or low breaking strength. Tension should always be looked after by the overseer several times a day. Always be governed by the tension on back lines of ends. Place a couple of fingers under the roving between the steel roll and top of flyer, raises the roving up not over one-half inch. If the roving has the slightest jerking sensation (caused by the compound) the work is being damaged. No fly frames should be taken up or let off on tension. The proper gear with the right construction of bobbin will start and finish the doff with a correct tension. A frame should always start as slack as you can possibly get your off-set change with. The tension is governed by the lay. If the roving is laid too open, the frames will start slack and finish tight. This cannot be regulated with the tension gear at all. The proper lay gears will start and finish without variation. A standard basis to work from is for No. 1 hank roving to be laid 12 layers to the inch. Figuring from this point both coarse and fine, will give correct layers per inch on different weights on roving. Example: 1 hank roving 12 layers to the inch, to change to .45 hank roving. The square root of the desired hank roving multiplied by 12 layers will show the proper layers for .45 hank roving: $\text{Sq. rt. of } .45 = .671. 671 \times 12 = 8 \text{ layers.}$

All slubbers and intermediates should be set to make the same size doff, so the creels will run out evenly on the frames, avoiding breaking out pieces while creeling. If frame is taken up or let off during doff, it will change the size of the doff.

The speed of the different processes should be governed by the grade of stock and number of hank roving being run. Slubber spindles should run very satisfactorily at 440 R. P. M. on hank from .50 up, on average stock, commonly known as middling cotton. Heavier hank on low grade cotton should not exceed 350 R. P. M. of the spindle. Intermediate spindles on 1 hank roving and up, middling cotton 600 R. P. M., heavier hank and lower cotton should not exceed 500 R. P. M. Speeders on 2 hank roving and up, middling cotton, 100 revolutions, heavier hank or low stock should not exceed 800 R. P. M. Jacks can be run very fast as this work is light and at all times when jacks are necessary, good cotton is used. The writer has run jacks very successfully on speeds which made it necessary to drive the flyers down with a brass hammer before starting after each doff.

The speeds, draft, etc., in this article have been tried by the writer and found essential to the best running work and high breaking strength. If your card room is short on machinery, it is far better to keep the draft right and speed up for production. Little Jim.

Tied for Second Prize.

By H. R. BOLTON, Roberdel, N. C.

For the care of roving frames, supposing them to be cut of line, and not level, draw a line along the front of the roller beam and one on top of the roller beam. Then take five gauges, these being blocks of wood about the size of your finger, and of equal thickness. Place one under each line at each end, and using the fifth one to gauge with, insert this gauge under each line at each leg of the frame, also using a small level. The frame is leveled by the adjusting leg screws or placing small blocks of wood under the legs. The line in front of the roll beam lines the frame, while the one on the top levels the frame lengthwise, while the spirit level levels it crosswise. Next line the bolster rail by drawing a line alongside the top of the bolsters and gauge all the bolsters to line, adjusting by the supporting arms. Then level the bolster rail by placing the level to the side of the bolster. Next adjust the step rail so that the spindles will run easily in the bolster and step. Then set all spindle and bobbins as closely as possible without causing them to jump.

The flyers should be kept straight and see that the fingers are not of different sizes. Then comes the adjusting and setting of the draft, twist, cone tension and lay gears. The change of draft gear is to regulate the hank roving, and twist gear is to insert the proper amount of twist per inch, while the cone gear is changed to regulate the tightness of the ends, say the first layer on the bobbin. The change of tension gears is to regulate the tightness of the ends from the time the first is put on a bobbin until the bobbins are full. If ends are running too tight, put on a large tension gear, except on English builds, and if ends are too slack, change to the reverse. The lay gear also regulates the tension of the ends. If it is found that the ends are running all right until bobbins are about half full and then they become too tight, it shows that the lay or spirals on bobbin are too close, and a larger lay gear should be on, and vice versa. Next see that a good

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twist gear on the frame and divide this by the square root of the hank roving being made. To find the draft gear for a certain hank roving, multiply the draft gears on the frame by the hank roving being produced and divide by the hank roving desired. To find the tension gear for a certain hank roving, multiply the square root of the hank roving being made by the tension gear that is on frame and divide by the square root of the hank roving to be made. This is for the American type of builders. For English makes, multiply the square root of the hank roving wanted by the tension gear, that is on frame and divide by square root of the hank roving being made. To find lay gears for a certain hank roving, multiply the square root of the hank roving being made by lay gears, that are on frame and divide by the square root of the hank roving wanted.

Next we go to the operation of the frames. First, the overseer or second hand should see that the frames are kept oiled and cleaned. All fast parts should be oiled daily. Rolls should be kept clean and oiled twice a week, seeing that the necks of the steel rolls are oiled. Oil spindles the first or second doff every day, preferably the second. See that they are run over so that the bobbin gears will get a little oil. Fanning off should not be allowed, except after a doff.

In creeling both slubbers and speeders, the hand should be taught to make as little waste as possible. Slubber hands should stay at their work, as this will prevent so many ends from coming down at once, thus checking a lot of hard ends and lumps on the roving. If you allow slubber hands to make bad roving, do not have the brass to tell the hand at the next process that they must make good roving. They cannot do it. The hands on intermediate roving and jack frames should be very attentive to their work to prevent double, single or cone belt is one the frame. It is best to have an endless belt.

The foregoing rules apply to all fly frames, but the setting of the rolls depends on the following: Speed of rolls, weight of stock being used, length of staple and weights on rolls. In all cases the back and middle rolls should be farther apart than the middle and front rolls. In all cases the distance from center to center, or from bite to bite, of rolls, should exceed the length of the staple as much as one-eighth inch. Top rolls should be looked after and good rolls kept in the frame. These rolls should be kept clean and oiled.

If it is desired to find the twist being inserted, time the spindles with a speed indicator for a few times. Say the spindle makes 20 revolutions while the front roll delivers 8 inches of roving, then $20 \div 8 = 2.5$ turns per inch, this being the quickest method of finding the twist per inch. To find twist gear to be used for a certain hank roving, multiply the square root of the hank roving being made by the tangled roving from passing

through to the next process. Tangled roving is prevented a great deal by second hands seeing that the proper taper is on the bobbin, also the proper tension gear. Do not have the ends run too slack, though they should be slack enough not to stretch the roving. Second hands and section men should assist the frame tenders in looking after bad points, such as bad rolls, and bad roving skewers. All bad ones should be replaced with new ones. If you have a hand that you can not train to make good work do not keep docking him. A poor hand is not worth wasting time on, and you had better settle with him.

Pat.

Tied for Second Prize.

By JOHN W. LONG, Charlotte, N. C.

All roving frames are practically of the same type of construction. The principal difference is that the slubbers have no creels nor doubling and from the slubbers to the jack frames, certain parts are made smaller which is necessary on account of the decreasing size of the stock being worked.

The object of the roving frames is first, to attenuate the thickened by roll drafting the thickness of the sliver, which is accomplished by the strands more by doubling. Third, to wind the roving on the bobbins. As a whole, the object is to prepare the drawing sliver for spinning into yarn.

I do not consider it necessary to draw diagrams and point out the relation between each train of gears and the action of the differential motion throughout its construction. The fly frames play an important part in the making of good yarn and are as essential to good running spinning and even yarn as any of the other preceding processes. In this article we must consider that the frames are already set up in the mill ready for, or in operation.

Drawing Rolls.

The drafting rolls, which are very much neglected by some mill men, are one of the most important factors in producing good roving. In my experience I have found that the following drafts will give the best results: Slubbers, not over 4 1-2 inches, not less than 3; intermediates, 5 1-2 to 6 1-4; Jack frames, 6 to 7; second intermediate 5 1-2 to 6 1-4. Some men advocate using as short a draft as possible, but from practice I find this to be erroneous. A real short draft on roving that contains twist will not draw out properly and will cause hard ends to come through which ruins the leather rolls and also causes the frames to run badly. On the other hand, too much draft at one process will produce weak and irregular roving.

Setting the rolls.—In determining the distance between the rolls, from center to center, be careful to get the proper length of the staple by sampling the sliver after it has

come through the draw frames for the length of the fibres will naturally measure longer here than it will from the opening room. Hence, if we figure the distance that the rolls should be apart from the cotton in the opening room, we are liable to get the rolls set too close and the consequences will be broken ends and weak yarn, which will not come up to standard in strength. It also has a tendency to cause hard ends. When rolls are set too close the roving has a tendency to drag the top rolls. This can readily be seen, for the back roll, with less speed, does not let the fibres loose until the front roller with faster speed, has gripped the projecting fibres, and consequently there is yarn of irregular weight. If the rolls are set too wide, the result will be uneven roving and yarn.

I have found the following setting for the various frames to give the best results: on cotton from 1 1-8 to 1 1-2 inch staple; while shorter staple can be set a little closer with good results: Slubbers, 1st and 2nd rolls, 4-16 to 5-16 in. more than length of staple; intermediate, 1st and 2nd rollers, three to four-sixteenths over staple; roving frames, 1st and 2nd rolls, 3-16. 2nd and 3d rolls 3-8 inch over staple; jack frames, 1st and 2nd rollers, 1 8 inch over staple and 2nd and 3rd rolls 1-4 inch.

A good way to test the setting of a frame after it has been started is to take the end of a rule and press it on the roving between the rolls and if they are too close the roving will not give way to the rule very easily, and vice-versa. The top rolls should be set forward a little so that when the frames are started again after being stopped they will not drop backward. The top and bottom rolls should not be of the same diameter for if they are the fluted steel roll will come in contact with the leather roll at the same place at each revolution, and the leather rolls will become fluted, necessitating a new one.

The traverse motion should be looked after and kept in good condition and should be made to traverse as near each end of the rollers as possible. This will lengthen the life of the leather and also produce better work.

Twist.—The amount of twist that is inserted in the roving is another important factor which has a great deal to do with the running of the work and the amount of production gotten off. The roving should not have more twist than is absolutely necessary to unwind itself at the next process without stretching. The greater the amount of twist put in the roving, the smaller the amount of production. However, do not try to run the frames without enough twist in the roving, as this is a very unwise thing to do. Roving with too much twist is hard to draw out and also causes hard ends which increases the roller bill and is the cause of bad roving. On the other hand, if there is not enough twist it will stretch and oc-

asionally break back to the creels. It will also frequently break at the presser foot causing the tender much worry and loss of time in piecing up ends. It is not possible to put in what is called standard twist on many occasions with good results, as the twist per inch must be governed by the length of the staple, the diameter of the fibres and the condition of the cotton. However, I always figure my twist by the standard and then make an examination of the roving after running a little on the frames to see whether there is enough or too much twist. Roving requires about one tooth more twist in the summer than in the winter. If the cotton buyer will do his duty and turn down every bale that does not come up to the proper length, it will be necessary to change the twist gear only at these periods.

Tension.—The tension of the ends requires close attention. They should run as slack as possible to obtain the best results. The tension must be changed when the weather changes, otherwise it will be necessary for the tender to slacken or tighten the ends as the case may be, which should not be allowed. For instance, if the ends are running too slack on a frame, and the tender winds the rack back toward the small end of the bottom cone, so as to tighten the ends, he is very liable to get the ends too tight, and stretch the roving. So it is better to change the tension gear when the ends become slack or loose.

Coils Per Inch.—I find from practice that it is best to lay the roving on the bobbins as closely as possible without over-lapping, mainly for two reasons: First, the closer the roving is laid on the bobbins, the greater the amount of roving wound on the bobbins, which means less creeling, less waste and less piecing. Second, if the layers are too wide it is a very difficult matter to make an end stay up with the same amount of wrapping after it has been down for one or two layers. It is also best to have the smallest possible amount of taper on the bobbins that will give a nice bobbin. The builders should be set so as to give the first layer on the bobbin its full traverse.

Creeling.—Slubbers should not be creeled during the making of a doff, but should be pieced in before the frame is started first after doffing and only one-third at a time, as roving made from nearly empty cans is lighter than that from full cans. By so doing the variation is eliminated.

Intermediates and roving frames should be creeled as fast as the operator can put in the full roving, while the frame is in motion.

Jack frames should be creeled two rows at a time while the other two are half run off. On all frames the top front row and the back bottom row should run into one and the top back row and the middle row into another. Frame hands

(Continued on Page 16.)

SOUTHERN TEXTILE BULLETIN

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Associate Editor

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THURSDAY, JANUARY 29

Increased Advertising.

Our readers have noticed the number of new advertisement which have appeared in the Southern Textile Bulletin during the past few weeks.

The steady growth in the amount of advertising which we carry is very gratifying to us as it indicates that our publication is being conducted along the right lines and that it is obtaining results for those who have had space with us in the past.

One advertiser who gets results, passes the word along to others and it is the old proposition of satisfied customers causing the growth of a business. Since we began the publication of this journal we have made as our motto, "circulation first" and we have not been satisfied with mere circulation for we know that to be an efficient medium of advertising a journal must reach both the buyer and the men who influence the buying.

We have published a live journal that could obtain and hold a circulation among both of the above classes and our advertisers have obtained results and other firms are taking space with us.

Textile Conditions.

Our managing editor has been in New York and New England during most of this month and has had an opportunity of observing the condition of the textile industry and allied trades.

While there is still some pessimism in New England, we can see nothing to indicate that the industry is not in a normal healthy condition and we can hear of very few mills that are actually suffering from a lack of orders.

A great factor in the pessimism that has prevailed and still prevails to some extent in New England has undoubtedly been the New York, New Haven and Hartford railroad situation. The stock of that railroad is owned almost entirely in New England and is very widely distributed. Until its real condition became known, its stock was selling around \$270 per share and had for many years paid regular dividends.

The value of that stock has now declined to between \$70 and \$80 per share and it is estimated that the shrinkage in value amounts to \$100,000,000. This loss, together with the loss of dividends being distributed

throughout New England has naturally caused a feeling of pessimism which has been reflected to some extent in the textile industry.

In every part of the country can be found a small class of men who have been bred and educated in the belief that the Republican party in power means prosperity and that the control of the Government by any other political party means adversity and hard times. Such men predicted ruin and bankruptcy if Wilson was elected and then made the same predictions relative to the passage of the tariff bill.

Although there has been no flood of imports since the Underwood-Simmons Bill, these men are still pessimistic and predict disaster for the future. In spite of the fact that they have seen many times when more machinery was idle, orders harder to obtain and prices less satisfactory, they are talking hard times and can see nothing good in the future.

In other words they are a class of men who place politics ahead of business and magnify the importance of the administration of affairs by the political party to which they happen to be allied.

We have no political affiliation and we did not favor the Underwood-Simmons Bill, but we belong to the class of people who believe that it makes little real difference to the country whether the Democrats, Republicans or Progressives are in power.

Platforms are usually made to get in on and no matter what may be said in political campaigns, the time will not come when the leaders of any political party will deliberately wreck the business of the country.

It has also been our observation that the effect of the enactment of a new law is always greatly exaggerated by its opponents for the purpose of creating sentiment against it.

While we realize that the real test of the new tariff bill is to come when business in England becomes dull and the English mills need orders, we are almost convinced that no serious injury is going to be done to the textile industry.

In the South the mills are running full time with orders ahead fully up to the average. The mill men seem to have forgotten the tariff bill except that it has given them an incentive to improve their mills and get them in shape to meet severe competition if it does appear.

The South is fortunate in having a labor supply which is more plentiful than ever before in the history

of the industry and which is rapidly becoming more skilled.

To our mind the labor conditions in New England present to the textile industry of that section a problem of far more importance than any tariff bill and we do not see its solution.

There is undoubtedly much less pessimism in New England than was the case a few months ago and we know that many of the leaders of the textile industry are gaining in the general movement in this country to divorce politics from business.

Looking at conditions from every standpoint we predict that 1914 will be a good year in the textile industry.

Bill to Provide Textile Schools.

There has been introduced in the Legislature of South Carolina a bill which seeks to introduce a decided innovation and provides, in brief, for the establishment and maintenance of textile and industrial schools. The bill started out by providing that such schools could be established in counties that had more than 3,500 persons employed in cotton mills, but was finally adopted with an amendment by Mr. Rittenberg that made it possible to have such schools in counties where the mill population is 2,000. The modus operandi is for the county, or the citizens of the county, to provide the site and \$5,000 for the erection of suitable buildings. After the school is established the State shall pay annually for the support of this school \$5,000. The bill was vigorously opposed by Messrs. Sapp, Liles, Epps, Stanley and Massey, not because of any assistance it might render to the cotton mill people but because they thought it better to have a central school of that kind, or because they thought Clemson College provides such education, or because they thought it was playing favorite with such counties as had large mill populations. The bill was supported by Mr. Haynsworth, Mr. Hutson, Mr. Mixson, Mr. Boyd and Mr. Rogers, and one of the strongest speeches of the session was made by Mr. Stevenson in favor of the passage of the bill. Mr. Haynsworth did not at first get much encouragement on his textile school bill but he literally drove it through the house; first, because of the showing that he made of the need for this class of training by the mill operatives who now, to better qualify themselves, are using correspondence schools and groping for the information they want. He pointed out that the cotton mills alone are paying considerably more than half a million dollars of taxes and that they are entitled to some return in the better preparation of their help. The house by an aye and nay vote of 67 to 40 passed this bill to its third reading and it will the textile industry are aiding in house.

PERSONAL NEWS

Tom Chatham is now section hand at the Fountain Inn (S. C.) Mfg. Co.

Morgan Esleck has been elected secretary and treasurer of the Elk Cotton Mills, Fayetteville, Tenn.

N. G. Cowan has resigned as secretary and treasurer of the Elk Mills, Fayetteville, Tenn.

Price has resigned as overseer carding at the Riverside Mill No. 2, Danville, Va.

W. J. Wall has resigned as overseer carding at the Oxford (N. C.) Cotton Mill.

G. E. Hitt has resigned as overseer of the cloth room at the Capital City Mill, Columbia, S. C.

H. E. Miller has been promoted to designer at the Capital City Mill, Columbia, S. C.

J. W. Moore is now overseer of spinning at the Capital City Mill, Columbia, S. C.

D. A. Hughey, of Gallatin, Tenn., is now fixing looms at the Edna Cotton Mill, Reidsville, N. C.

Morgan Ballard, of Experiment, Ga., has become second hand at the Aldora Mill, Barnesville, Ga.

J. S. Linder is now overseer of weaving at the Pepperton Mill, Jackson, Ga.

J. M. Bobo, of Spartanburg, S. C., is now second hand in spinning at the Enoree (S. C.) Mfg. Co.

M. H. Hall has resigned as overseer of carding at the Lydia Mill, Clinton, S. C., and will enter the insurance business.

J. W. Barefoot, of Baltimore, Md., has accepted position of overseer of weaving at Abingdon Mills, Huntsville, Ala.

T. B. Browder has been promoted from loom fixer to overseer of weaving at the Capital City Mills, Columbia, S. C.

W. A. Jordan has been promoted from second hand to overseer of the cloth room at the Capital City Mill, Columbia, S. C.

Lee Marsh has been promoted from section hand to night overseer of spinning at the Capital City Mill, Columbia, S. C.

J. R. Westmoreland, of Union, S. C., has accepted a position in the office of the Spartan Mill, Spartanburg, S. C.

W. C. Cobb, superintendent of the Ware Shoals (S. C.) Mfg. Co., is in New York on business in connection with the company.

Henry Jacumin has resigned as overseer of carding and spinning at the Broad River Mills, Blacksburg, S. C.

Roy Robinson has resigned as designer at the Capital City Mill, Columbia, S. C., and accepted a position at Greer, S. C.

E. W. Winecoff, formerly overseer of weaving in the Valley Creek Mill, Selma, Ala., has accepted a position at the Dan River Mill, Danville, Va.

Z. R. Covington has resigned as overseer of finishing at the Locke Mill, Concord, N. C., and accepted a similar position at Steele's Mill, Rockingham, N. C.

A. W. Roper of Cherryville, N. C., has accepted the position of overseer of carding and spinning at the Broad River Mfg. Co., Blacksburg, S. C.

J. T. Tidwell has resigned as overseer of weaving at Lowe Mfg. Co., Huntsville, Ala., to accept similar position at the Judson Mills, Greenville, S. C.

F. D. Lockman has resigned as overseer weaving at Abingdon Mills, Huntsville, Ala., to accept same position at Lowe Mfg. Co., Huntsville, Ala.

J. H. Reid has resigned his position in the weave room at the Handley Mfg. Co., Roanoke, Ala., to become overseer of weaving at the Alexander City (Ala.) Cotton Mills.

W. H. Gibson has resigned as overseer of weaving at the Capital City Mills, Columbia, S. C., and accepted a similar position at the Social Circle (Ga.) Mills.

CARDS,
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COTTON
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FRAMES,

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Greenville, S. C.

COMBERS,
LAP MACHINES.

MULES,
LOOMS.

J. A. Ruth has resigned as superintendent of the Elliott Knitting Mills, Hickory, N. C., to accept a similar position at Marion, N. C.

Lee Skipper, son of the late C. B. Skipper, has accepted a position with the Lancaster (S. C.) Cotton Mills.

W. A. Jennings has accepted the position of overseer of carding and spinning at the Riverside Mills, Worthville, N. C.

J. L. McCarver, of Merrimack Mills, Huntsville, Ala., has been promoted from overhauling spinning to second hand in spooling and warping in same mills.

W. C. Pennington has resigned as loom fixer at the White Oak Mill, Greensboro, N. C., to take charge of the combing at the Amazon Mill, Thomasville, N. C.

Oscar Smith has resigned as second hand in spinning at the Milledgeville (Ga.) Mills, and accepted a similar position at the Imperial Mills, Eatonton, Ga.

John Curwen, formerly overseer of carding at the Prattville (Ala.) Cotton Mills, has accepted a similar position at the Demopolis (Ala.) Cotton Mills.

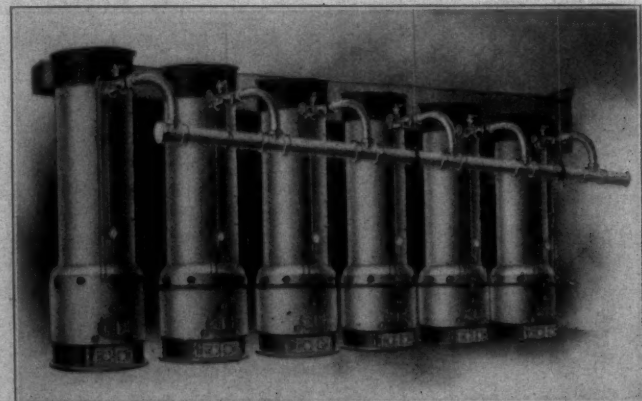
Robt. McCamp, time-keeper at the Massachusetts Mills, Lindale, Ga., who has been in ill health for some time, is undergoing treatment at a hospital in Rome, Ga.

G. D. Barlow, general superintendent of the Hamer (S. C.) Mills, has resigned as general superintendent of the Hamer plant, and will hereafter devote his time to the Maple and Dillon plants.

W. A. Skidmore, formerly overseer of spinning at the Chadwick-Hoskins Mill No. 1, Charlotte, N. C., has accepted a similar position at the Thrift Mfg. Co., Paw Creek, N. C.

R. H. Williams has resigned as overseer of spinning at the Thrift Mfg. Co., Paw Creek, N. C., and returned to his former position as overseer of spinning at the Monarch Mills, Union, S. C.

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MILL NEWS ITEMS OF INTEREST

Graham, Va.—J. M. Newman is preparing plans for the establishment of a woolen mill at this place.

Knoxville, Tenn.—The Knoxville Spinning Co. are adding two Woonsocket speeders and six Whittin spinning frames.

Parkersburg, W. V.—The Parkersburg Woolen Mills have been incorporated with a capital stock of \$5,000, by Geo. W. Strong, Jas. A. Bryan and others.

Lumberton, N. C.—At the quarterly meeting of the directors of the mill last Tuesday, the usual quarterly 5 per cent dividend was declared.

Fayetteville, Tenn.—At the annual meeting of the stockholders of the Elk Cotton Mills, R. A. Rees was elected president; Morgan Eslick, secretary-treasurer, and Ernest Rees, general manager.

Humboldt, Tenn.—The Humboldt Cotton Mills have elected at their annual meeting W. W. Baird president; A. R. Dodson treasurer and J. R. Jarrell secretary.

New Orleans, La.—The Alden Mills will increase their capital stock from \$200,000 to \$500,000. It has not been announced whether the company will enlarge their plant.

Durham, N. C.—The Louise Knitting Mills have been incorporated with a capital stock of \$50,000. The incorporators are J. H. Stone, K. C. Stone, T. H. Allison and others. They will erect a plant to do a general knitting mill business.

Rogersville, Tenn.—In regard to the previously mentioned plan for a hosiery mill here, it is said that Oscar Herman of Cleveland, O., Hugh G. Kyle and others, are organizing a company to be incorporated with a capital stock of \$50,000 to build a hosiery mill.

Kings Mountain, N. C.—The Phoenix Manufacturing Co., has completed the building of an addition to its mill, which will be filled with looms at once. In the future the mill will weave its yarns, instead of selling them as it has heretofore done.

Central Falls, N. C.—The Central Falls Mills have received a charter with \$100,000 capital authorized and \$25,000 subscribed by R. L. Caveness, J. M. Caveness and J. B. Stroud, the latter of Greensboro. The new corporation has general power to operate cotton mills and especially to take over the plant of the Worth Manufacturing Company, just passed through bankruptcy proceedings and deeded by the bankruptcy trustee to J. B. Stroud and wife.

Fort Mill, S. C.—The Fort Mill Manufacturing company held its annual stockholders' and directors' meetings last week. Only routine business was transacted, including the re-election of the present officers. Beginning at once, the employees will be paid their wages weekly instead of bi-weekly as heretofore.

Kannapolis, N. C.—Ground has been staked off for an addition to the Patterson Mill here. The addition will be 85x200 feet and two stories high. This addition will be for spinning. It is said that the work will be pushed and the new machinery installed as soon as possible.

Old Fort, S. C.—The construction work on the recently organized Century Knitting Mills is progressing nicely. The building will be of brick and concrete and will be 60x164 feet in size. It will be equipped with automatic sprinklers for fire protection. It is thought the plant will be put into active operation early in March.

Lumberton, N. C.—At the annual meeting of the directors and stockholders of the Jennings Cotton Mill, held last week, H. B. Jennings was re-elected president and treasurer; A. E. White, vice-president; F. P. Grey, secretary and assistant treasurer. The old board of directors were all re-elected and H. B. Phillips was added to the board. The usual quarterly dividend of 2 per cent was declared.

New Orleans, La.—The O. K. Knitting Mill have been incorporated with a capital stock of \$25,000. The officers of the new company are N. Orsher, president; S. Kronegold, secretary-treasurer and A. Radlauer. They have ordered 25 knitting machines for manufacturing sweaters. This is the permanent organization of the company recently reported as planning to build a knitting plant.

Gastonia, N. C.—Fire Monday morning about 9:30 o'clock destroyed one of the Loray Mill's tenement houses occupied by J. F. McFarland and family. The occupants lost practically all of their household goods and \$60 in money. The fire company responded promptly but the flames had already practically destroyed the house before they reached the scene.

McAdenville, N. C.—The annual meeting of the stockholders of the McAden Mills was held last week in the office of the company. The semi-annual dividend of three per cent was declared. The election resulted as follows: Henry M. McAden, president; R. R. Ray, secretary and treasurer; James T. McAden, A. L. Baker of Raleigh and Charles A. Bland, associate directors.

Quitman, Ga.—Quitman Mfg. Co., has been incorporated with capital stock of \$100,000 by S. M. Turner, S. S. Rountree, E. J. Young, G. M. Spain and others to acquire Atlantic & Gulf Mills, which are equipped with 10,000 ring spindles, 2500 twist-spindles, etc.

Lumberton, N. C.—The annual meeting of the directors and stockholders of the Dresden Cotton Mill was held in the mills' office last week. All of the old officers were re-elected: President, R. D. Caldwell; vice-president, A. W. McLean; secretary-treasurer, H. B. Jennings; assistant secretary-treasurer, F. P. Grey. The usual quarterly dividend of 2 1-2 per cent was declared.

Forest City, N. C.—Following the movement which was undertaken here a few days ago to land another cotton mill in Forest City, a representative of outside capital was here, looking over sites which have been offered. A meeting of those who have already subscribed to stock in the proposed enterprise was held at the Hotel Mabree last week. The mill is now almost assured and there is but little doubt that Forest City will have another enterprise of this nature soon.

Wesson, Miss.—The Wesson Operating Company has been incorporated by S. Odenheimer, president; L. Marv, vice-president and E. Marx, secretary and treasurer. The new company will take over and operate the Mississippi Mills. The latter have not been in operation for some time. The plant has an equipment of 16,496 spindles and 611 looms, and was formerly operated on checks and plaids. There is also a provision in the charter of the new company which permits the manufacture of woolen goods as well as cotton products.

Anniston, Ala.—Anniston Knitting Mill Co., which is now operating two plants in Anniston, has secured plot of ground in northern part of the city along Southern and Louisville & Nashville tracks for an additional plant. E. L. Field, manager of the two other plants of concern, states that plans for operation of new mill will be completed at annual meeting of stockholders in February. Company now turning out over 400 dozen pairs of hose a day and new plant will more than double capacity. New building will be two stories in height, with 20,000 square feet of floor space.

Charlotte, N. C.—The Highland Park Mfg. Co. is known to be considering the purchase of 1,000 acres of land near Charlotte on the Norfolk-Southern Railway and it is reported that Mill No. 1 will be moved to the new location and considerably enlarged.

Mill No. 1 is not in a favorable location due to the development of

the city that has taken place in its vicinity and the proposed change of location would doubtless benefit the company. While the tract will probably be purchased at once, the removal of the mill is not contemplated for a year or more.

Tarboro, N. C.—Action has been brought by the majority stockholders of the Tarboro Cotton Factory for \$50,000 damages on the ground of abuse of legal process against the Macclesfield Company, Dr. L. E. Norfleet, Henry Clark Bridgers and J. M. Norfleet. Judge G. W. Connor recently consented to the sale of the property by three commissioners, said commissioners to be appointed by counsel. Counsel, however, was unable to agree and thus the filing of this suit. The defendants have not filed an answer to the complaint as yet. This is one of the largest suits ever instituted in this county.

Concord, N. C.—Two of Concord's cotton mills have held stockholders meetings and declared dividends. The Cannon mill has declared five per cent semi-annual dividend and the Gibson four per cent. A. H. Howard has been appointed a director of the Gibson to succeed the late Dr. R. S. Young. Both of the mills are in the chain of Cannon mills of which J. W. Cannon is president.

Secretary and Treasurer C. A. Cannon has mailed checks for semi-annual dividend paid by the Barringer Manufacturing Company of Rockwell. During the first half year the company paid three per cent dividend. J. W. Cannon, president; J. F. Cannon, vice president and C. A. Cannon, secretary and treasurer. The plant has been enlarged and its financial condition placed on a dividend-paying basis.

Overseers Entertained.

A supper was given the superintendents, overseers and office force of the Gaffney (S. C.) Manufacturing Company Monday night by L. G. Potter, secretary and treasurer of the company, at his home on Cherokee Avenue. All present thoroughly enjoyed the repast.

Raines Family on Rampage in Union.

While attempting to arrest a man at Ottaray Mills, Union, S. C., officer Kay Hawkins was badly shot in the arm and side and as a result his arm may have to be amputated.

It seems that a man named Raine was acting in a disorderly way and Officer Hawkins and Deputy Ed Lawson went to take him into custody. Raine resisted arrest and his three brothers and father came to his assistance, after getting their shotguns and pistols, and a melee ensued in which several shots were fired by the Raine boys and Hawkins was badly wounded.

Thursday, January 29, 1914.

SOUTHERN TEXTILE BULLETIN.

Will Make Picker Sticks.

Recent J. and J. S. Carter acquired the old property of the Southern Shuttle and Bobbin Company in Westminster, S. C., and have commenced to improve the property for the purpose of manufacturing picker sticks, spokes, etc. The brick store house, formerly used as office of the shuttle company is on this property, also.

Dinner to Employees.

On Saturday night last, the Mountain View Hotel, Easley, S. C., was the scene of one of the most pleasant social events of the season. Gathered together on this occasion were 60 men, comprising the office force, overseers and the head officials of the various departments of the Easley Cotton Mills. The menu consisted of a typical Southern turkey dinner. After several courses had been temptingly served, each man present was called on for a short talk. J. M. Geer, president of the corporation, was the first to address the gathering. E. P. McCravy, the only one present who was not an employee of the corporation, made a most interesting talk, in which he expressed the love and unity which should exist between the officials and operatives of all corporations.

Speaks to Textile Students.

Ralph M. Odell, commercial agent of the Bureau of Foreign and Domestic Commerce, Washington, D. C., who has been making a study of the cotton markets throughout the world, gave a lecture to the textile students in the Textile Department at A. & M. College, Raleigh, N. C., on January 20th. Mr. Odell had on exhibition about 500 samples which he had collected from different parts of the world. The various customs of the people in the different countries which he visited were very interestingly described, and also the manner in which the various cotton fabrics were used. It was also pointed out how America could be pushing forward in the sale of these goods obtain sufficient orders to keep American mills busy. A very small proportion of the samples which were on exhibit were made in America, though every one of these could very easily have been made in North Carolina.

Ninth Cotton Ginning Report.

Washington, Jan. 23.—The ninth cotton ginning report of the census bureau for the season, issued at 10 o'clock this morning, announced that 13,589,171 bales of cotton, counting round as half bales, of the growth of 1913 had been ginned prior to January 16th, to which date during the past seven years the



Spinners Run More Sides

The following letter was written to one of our foremen:

We have now had the Turbo-Humidifier in operation nearly three months, and I take pleasure in testifying to the efficiency of the same.

We have had no trouble whatever with the system during this time, and your own personal work upon the job was most excellent.

I have had experience with nearly all of the standard types of humidifiers, but the Turbo in my opinion excels at every point. I firmly believe that it is a direct saving of nearly 3 per cent. in the matter of invisible waste, besides enabling us to use stock that heretofore was unavailable and valueless. Our spinners run more sides, thereby increasing the individual earnings. The Turbo practically cares for itself and needs little or no attention, after being properly adjusted.

THE G. M. PARKS CO.

FITCHBURG, MASS.

Southern Office, Commercial Bldg., Charlotte, N. C.

J. S. COTHRAN, Manager

WHEN YOU WANT
LOOM HARNESSES

In a Rush.

We pay particular attention to orders for loom harnesses which are wanted in a limited time. We give these orders precedence and ship the harnesses without fail on the date specified in the order. You will not be disappointed in delivery if you send us your "hurry up" orders.

GARLAND MFG CO

Saco, Maine



ginning averaged 95.5 per cent of the entire crop. Last year to January 15th there had been ginned 13,088,930 bales, or 97.0 per cent of the entire crop; in 1911 to that date 14,515,799 bales or 93.3 per cent, and in 1908 to that date 12,666,203 bales, or 96.8 per cent.

Included in the ginmings were 97,034 round bales, compared with 78,690 bales last year; 97,654 bales in 1911; 111,079 bales in 1910, and 232,510 bales in 1908.

The number of Sea Island cotton bles included were 76,182 compared with 70,058 bales last year; 109,867 bales in 1912 and 92,491 bales in 1909.

Improvements in Finishing.

Any textile manufacturer that looks for improvements in sizing and finishing or meets with any difficulty in this respect will find it worth his while to turn to The Arabol Mfg. Co., 400 William street, New York city for help. Scientific specialization, long and extended experience, modern equipment in factory and laboratory have prepared them to cope with every condition. Their progressive spirit which makes them continually increase their staples, has given valuable assistance to the advancement of American textile manufacturing.

1913 Cotton Consumption Figures.

Twenty-nine different States figure in the records of cotton consumed industrially, although only 15 share in its production. Last year Massachusetts, as usual, led with 1,332,912 bales. North Carolina holds second place, a State which 50 years ago was described as noted for its production of "tar, pitch and turpentine." The State last year worked up 876,359 bales of cotton followed by South Carolina with 775,851 bales and by Georgia with 648,131 bales.

The largest three consuming States following Massachusetts are found in the South, and together they consumed 2,300,000 bales, or somewhat less than one-half of the country's total consumption of 5,786,330 bales. The next group of consuming States lies in the North, and almost wholly in New England, with the exception of Alabama, which compares with New Hampshire in taking about 300,000 bales last year. Yet it is the general judgment that the cotton growing States which last year took 2,960,518 bales, and all others 3,825,812 bales, have barely begun their career of expansion in the manufacture of cotton goods which will place Southern States in a group next to Lancashire for the supply of cotton yarns and goods.—Daily Trade Record.

AMERICAN MOISTENING COMPANY

BOSTON, MASSACHUSETTS

WILLIAM FIRTH, President

FRANK B. COMINS, Vice-Pres. & Treas.

THE ONLY PERFECT SYSTEM OF AIR MOISTENING
COMINS SECTIONAL HUMIDIFIER

JOHN HILL Southern Representative, Third Nat. Bank Building, ATLANTA, GEORGIA

Cotton Goods Report

New York.—Prices were varying in the cotton goods market last week and business was fairly active. Gray goods for converting purposes held steady and there was a moderate volume of trading in this division of the market. It is said that there will be no further reductions in percales for fall unless there is a marked change in the business. The jobbers are finding that retailers want their goods on advance orders and are asking for early February deliveries.

The market in print cloths showed some activity and some large sales were made. Stock in the hands of mills and converters are not plentiful and there was no break in the prices of staple gray goods.

39-inch, 80 squares, 4 yard, are still quoted at 7 1-4 cents for spots and 7 1-8 cents on contract. 38 1-2-inch, 64x60s, 5.35 spots, are quoted at 5 3-8 cents. 39-inch, 68x72s, 5.35 spots, are quoted at 5 3-8 cents. 39-inch, 68x72s, 4.75, sold on contract at six cents, and spots were quoted at 6 1-8 cents.

In the market for drills, 37-inch, 3.95 drills were quoted at six cents, the 37-inch, 3.50 drills at 6 5-8 cents.

The market on fine goods and novelties showed some improvement during the week. Converters are beginning to operate and have more definite ideas regarding the classes of goods which they expect to sell.

While some lines of bleached cottons and gingham are being held very firmly despite the fact that other goods are being offered at lower prices, this is also true with some of the larger houses handling brown cottons. These houses have been refusing low prices, but are steadily selling in a small way at prices that are accepted by the mills. Jobbers who have been making offers for future supplies of heavy colored cotton goods are finding manufacturers of these goods in a better position than expected. Those who make well known lines are in comfortable position and holding firmly at current price levels. Denims are still under order in some mills for a satisfactory distance ahead, and in some well known lines of brown goods, the situation is also good. It is said, however, that the manufacturers of heavy weight cotton duck are not in as good a position as might be. Selling agents are looking for orders and many mills are trying to secure new business.

In the Fall River print cloth market last week trading declined somewhat and the total sales were only 160,000 pieces, about half the number of previous week.

Mills have held firm on prices, however, quotations at the end of the week remaining unchanged. Buyers during the last few days have shown a disposition to hold off, realizing that prices are probably as high now as they will go for a time anyway, while reaction in the cotton market or an unfavorable

gin report might result in reductions.

Sales have been confined almost exclusively to the wide and medium width styles. Practically no inquiry developed for the narrow styles. Wide goods are still scarce and very little is available for quick delivery. Contracts generally are placed to extend through April. Fairly active inquiry has been shown for sateens and trading in these goods, during the week, has been much more active than for twills. Mills report that buyers have found it easier to procure twills elsewhere at more attractive prices. The fine goods' mills still find trading dull with little call for their goods except on the specialties and fancies, which of course, are always more or less in demand.

Print cloth, 28-in, std	3 3-4	..
28-inch, 64x60s	3 1-2	..
4-yard, 80x80s	7 1-4	..
Gray goods, 39-in.		
68x72s	6 1-8	..
38 1-2-inch standard	5 1-2	5 5-8
Brown drills, std.	8 1-4	..
Sheetings, So. std.	8 1-4	..
3-yard	7 1-4	..
4-yard, 56x60s	6 1-4	..
4-yard, 48x80s	6 1-4	..
4 1-2-Yd., 44x44s	5 3-8	5 1-2
5-yard, 48x52s	5	5 1-8
Denims, 9-ounce	14 1-2	17
Stark, 9-oz., duck	14	..
Hartford, 11-ounce, 40-		
in, duck	16 1-2	..
Ticking, 8-ounce	13 1-2	..
Standard, fancy print	5 1-4	..
Standard, gingham	6 1-4	..
Fine dress gingham	8	9 3-4
Kid finished cambrics	4 3-4	..

Weekly Visible Supply of American Cotton.

Jan. 23, 1914	4,515,585
Last week	4,547,949
Same date last year	4,250,861

Weekly Cotton Statistics.

New York, Jan. 23.—The following statistics on the movement of cotton for the week ending Friday, January 23, were compiled by the New York Cotton Exchange:

WEEKLY MOVEMENT.	
	1914
Port receipts	255,778
Overland to mills and Canada	25,083
Southern mill takings est.	85,000
Loss of stock at interior towns	5,274

Brought in sight for week	360,587
TOTAL CROP MOVEMENT.	
Port receipts	7,733,212
Overland to mills and Canada	719,431
Southern mill takings est.	1,777,000
Stock at interior towns in excess of Sept. 1	758,060

Br't in sight for season..10,985,703
1,150 deducted from receipts for season.
75,000 added to overland to mills and Canada.

GRINNELL WILLIS & COMPANY

44-46 Leonard Street, New York

SELLING AGENTS

BROWN AND BLEACHED COTTON GOODS FOR HOME EXPORT MARKETS

RICHARD A. BLYTHE

(INCORPORATED)

Cotton Yarns Mercerized and Natural

ALL NUMBERS

505-506 Mariner and Merchant Building

PHILADELPHIA, PA.

The Desirability of the South

as the place to manufacture cotton goods is illustrated in the increase of 67% quoted by census department. We can offer attractive situations for those desiring to enter this field.

J. A. PRIDE

General Industrial Agent, Seaboard Air Line Railway

NORFOLK, VIRGINIA.

When you enjoy the economy of lubrication provided by

TRADE MARK
NON-FLUID OIL
UNITED STATES PATENT OFFICE

you discover that increased production means a great deal more than a slightly lower lubricant expense.

Figure out the saving involved in a 50% reduction of oil stains in your Carding, Twisting and Spinning. Then write us for test samples of NON-FLUID OIL for Comb-boxes, Roll Necks and Twister Rings.

SOLE MANUFACTURERS

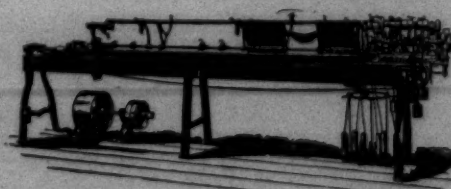
New York & New Jersey Lubricant Co.
165 Broadway, NEW YORK

IMPROVED INMAN AUTOMATIC BANDING MACHINES

MANUFACTURED BY

COLE BROTHERS

PAWTUCKET, R. I.



The only automatic machine in the world for making loop bands for spinning frames. Superior quality of bands without any cost of making. All bands exactly alike and no stretch of bands after they are put on. Saves child labor.

Also Beaming Machine to beam on to slasher beams.

The Yarn Market

Philadelphia, Pa.—There was a fairly good volume of business transacted in the yarn market last week. Most of the sales were for nearby delivery, there being only a few on which deliveries ran far ahead. Business with some dealers was hand to mouth, while others had orders as far ahead as April. Deliveries on old contracts were good.

The demand for combed yarn last week was rather light, as buyers for the most part consider prices too high, there being little call even for single combed peeler cones. The demand for the fine two-ply combed yarns was confined to small quantities for quick delivery.

Sales of 10-2 were made for 28 to 41 cents; 50-2 for 44 to 46 cents, and 60-2 for 49 to 53 cents. There was some inquiry for 20-2 to 40-2 combed Sea Island warps and skeins. A sale of 20-2 combed Sea Island skeins was reported made for 46 cents, and 40-2 warp mercerizing twist sold for 54 cents.

Hosiery manufacturers and manufacturers of carded yarn hosiery bought considerable quantities of yarn last week. As fast as the underwear men get confirmation of orders, they buy yarn to cover their needs. Some of the knitters are receiving duplicate orders and are buying yarns.

Sales of Southern frame spun carded cones were made on the basis of 21 to 21 1-2 cents for 10s, white stock, and 22 cents was paid for guaranteed yarn. Tinged stock was reported sold on the basis of 20 1-2 cents. Southern mule spun cones were sold on the basis of 22 cents for 10s.

Southern Single Skeins.

4s to 8s	19 1-2-20
10s	20 1-2-
12s	20 1-2-21
14s	21 -
16s	21 1-2-
20s	23 -
26s	23 1-2-24
30s	25 1-2-26

Southern Two-Ply Skeins:

8s	19 -20
10c	20 -20 1-2
12s	21 -
14s	21 -21 1-2
16s	21 -21 1-2
20s	22 1-2-
24s	23 1-2-
26s	24 -
30s	25 1-2-
40s	30 1-2-31
50s	36 1-2-37
60s	45 -

Carpets and Upholstery Yarn in Skeins:

9-4 slack	20 1-2-
8-4 slack	20 -
8-3-4 hard twist	18 1-2-19

Southern Single Warps:

8s	20 -
10s	20 1-2-
12s	20 1-2-21
14s	21 -
16s	21 -
18s	21 1-2-
20s	22 1-2-
24s	23 1-2-
26s	23 1-2-
28s	24 -
30s	25 1-2-
40s	31 -

Southern Two-Ply Warps:

8s	20 -20 1-2
10s	20 1-2-
12s	21 -
14s	21 1-2-
16s	22 1-2-
20s	22 1-2-
24s	23 1-2-24
26s	24 -24 1-2
30s	25 1-2-25 3-4
40s	31 -31 1-2
50s	37 -

Southern Frame Spun Yarn on Cones

8s	20 -20 1-2
10s	21 -
12s	21 -21 1-2
14s	21 1-2-22
16s	22 -22 1-2
18s	22 1-2-23
20s	23 -23 1-2
22s	23 1-2-24
24s	24 1-2-
26s	25 -
30s	26 1-2-27 1-2

Two-Ply Carded Reeler in Skeins:

20s	26 -
22s	26 1-2-
24s	27 -
26s	27 1-2-28
30s	28 1-2-29
36s	33 1-2-
40s	34 -34 1-2
50s	38 -39
60s	49 -

Single Combed Peeler Skeins:

20s	30 1-2-31
24s	32 -
30s	34 -35
40s	40 -
50s	40 -
50s	46 -
50s	46 -47
60s	53 -54

Two-Ply Combed Peeler Skeins:

20s	31 -
24s	32 -32 1-2
30s	35 -35 1-2
40s	39 -40
50s	45 -46
60s	52 -53
70s	60 -
80s	69 -70

"What did he get for confessing?"
"Immunity from the district attorney, two cents a word from the magazines and fits from his former friends."—Judge.

A. M. Law & Co. F. C. Abbott & Co.

Spartanburg, S. C.

Charlotte, N. C.

BROKERS

BROKERS

Dealers in Mill Stocks and other Southern Securities

Southern Mill Stocks, Bank Stocks
N. C. State Bonds, N. C. Railroad Stock and Other High Grade Securities

South Carolina and Georgia Mill Stocks.

	Bid	Asked
Abbeville Cot. M., S. C.	100	
Aiken Mfg. Co., S. C.	35	
Amer. Spinning Co., S. C.	154	
Anderson C. M., S. C., pf	90	
Arcadia Mills, S. C.	100	
Aragon Mills, S. C.	65	
Arkwright Mills, S. C.	100	
Augusta Factory, Ga.	35	
Avondale Mills, Ala.	115	120
Belton Cot. Mills, S. C.	98	100
Brandon Mill, S. C.	75	
Brogan Mills, S. C.	51	
Calhoun Mills, S. C.	85	
Capital Cot. Mills, S. C.	85	
Chiquola, S. C., com.	105	115
Clifton Mfg. Co., S. C.	101	
Clifton Mfg. Co., S. C., pf	100	
Clifton Cot. Mills, S. C.	125	
Courtenay Mfg. Co., S. C.	80	
Columbus Mfg. Co. Ga	82½	
Cox Mfg. Co., S. C.	100	
D. E. Converse Co., S. C.	85	
Dallas Mfg. Co., Ala.	110	
Darlington Mfg. Co., S. C.	65	
Drayton Mills, S. C.	30	
Eagle & Phenix M. Ga.	72	
Easley Cot. Mill, S. C.	180	
Enoree Mfg. Co., S. C.	25	
Enoree Mfg. Co., S. C., pf	100	
Enterprise Mfg. Co., Ga.	65	70
Exposition Mills, Ga.	125	
Fairfield C. Mills, S. C.	70	
Gaffney Mfg. Co., S. C.	57½	60
Gainesville C. M. Co., c'm	75	
Glenwood Mills, S. C.	6	97
Glenn-Lowry Mfg. Co. S. C.	101	
Glenn-Lowry Mfg. Co., S. C., preferred	86	
Gluck Mills, S. C.	85	
Granby Cot. Mills, S. C.		
Granby C. M., S. C., pf		
Granitev'e Mfg. Co., S. C.	125	
Grendel Mill, S. C.	100	
Hamrick Mills, S. C.	102	
Hartsville C. M., S. C. N	170	
Inman Mills, S. C.	105	
Inman Mills, S. C., pf	100	
Jackson Mills, S. C.	90	95
Jno. P. King Mfg. Co. Ga	80	
Lancaster C. Mills, S. C.	130	
Lancaster C. M., S. C., pf	97	
Langley Mfg. Co., S. C.	70	75
Laurens Cot. Mill, S. C.	115	
Limestone Mill, S. C.	125	133
Lockhart Mills, S. C.	40	50
Marlboro Mills, S. C.	75	
Mills Mfg. Co., S. C.	110	
Mollobon Mfg. Co., S. C.	90	
Monarch Mills, S. C.	115	
Monaghan Mills, S. C.		
Newberry C. Mills, S. C.	140	
Ninety-Six Mills, S. C.	135	
Norris Cot. Mill, S. C.	140	
Orangebur. Mfg. Co., S.		

North Carolina Mill Stocks.

	Bid	Asked
Arista		
Arlington		140
Avon		
Brown, pfd		100
Cannon		151
Cabarrus		150
Chadwick-Hoskins, pfd		100
Chadwick-Hoskins, com		85
Chronicle		160
Cliffside		190
Erwin, com		155
Erwin, pfd	102	105
Gibson		112
Gray Mfg. Co.		
Henrietta		141
Highland Park		185
Highland Park, pfd		102
Imperial		130
Kesler		150
Kesler		150
Loray Mfg. Co., pfd		85
Loray, com		10
Lowell		200
Majestic		150
Patterson		129
Vance		70
Washington Mills		10
Wiscasset		135
Wiscasset		135
Olympia Mills, S. C., pfd		
Parker Cotton Mills, guaranteed	100	100 & in
Parker, pfd	40	45
Common	16	20
Orr Cotton Mills		92½
Ottaray Mills, S. C.		100
Oconee Mills, common		100
Oconee Mills, pfd		100 & in
Pacolet Mfg. Co., S. C.		101
Pacolet Mfg. Co., pfd		100 & in
Parker Mills, pfd		40
Pelzer Mfg. Co., S. C.		135
Pickens C. Mills, S. C.		100
Piedmont Mfg. Co., S. C.		144
Poe F. W.) Mfg. Co., S. C.		105
Richland C. M., S. C., pf		115
Riverside Mills, S. C.		25
Roanoke Mills, S. C.		140
Saxon Mill, S. C.		126
Sibley Mfg. Co., Ga.		64
Spartan Mill, S. C.		125
Tucapau Mill, S. C.		280
Toxaway Mills, S. C.		72
Union-Buffalo, 1st pfd		35
Union-Buffalo Mills, S. 2nd pfd		10
Victor Mfg. Co., S. C.		
Ware Shoals Mfg. Co., S. C.		75
Warren Mfg. Co., S. C.		80
Warren Mfg. Co., pfd		100
Watts Mill, S. C.		35
Williamston Mill, S. C.		97
Woodruff C. Mills, S. C.		95
Woodside C. Mills, S. C.		

Personal Items

B. F. Touchstone is now overseer of weaving at the Riverside Mills, Worthville, N. C.

R. W. Giles has accepted the position of master mechanic at the Riverside Mills, Worthville, N. C.

Yancey L. Yon has resigned his position with the Textile Manufacturer of Charlotte, N. C.

C. O. Edwards of Winder, Ga., is now overseer of weaving at the Buck Creek Mills, Siluria, Ala.

L. J. Cochran of Avondale, Ala., is now carder at the Buck Creek Mills, Siluria, Ala.

W. L. Robinson, superintendent of the Cannon Mills, Concord, N. C., has returned to his work after a brief illness.

J. W. Head has been promoted from loom fixer to second hand in weaving at Buck Creek Mills, Siluria, Ala.

Walter of Statesville, N. C., has accepted the position of superintendent of the Elliott Knitting Mills, Hickory, N. C.

R. W. Glenn Accepts New Position.

R. W. Glenn of Greensboro, N. C., has accepted the position of Southern representative of the Badische Company of New York, which was recently vacated by C. Walter Lee.

Mr. Glenn had for many years been with A. Klipstein & Co., and is well and favorably known to the

Tied For Second Prize.

(Continued from Page 9)

should be allowed to pull off very little roving from the bobbins while creeling, as it will cost just as much to rework this roving and bring it back to the frames as it did on the first and it will not be as strong on account of being worked too much.

Oiling.—Oiling should be done by a competent, intelligent man for a good oiler will save break-downs and reduce the cost of the wear and tear of the machinery. All fast motions gears and the shaft should be oiled twice daily, slower motions once or twice a week, and the base once a month. Oil the bobbin whorls at the first doff each day. The front steel rolls should be oiled once a day and the top rolls, if solid, one time a day; if shell, once a week. Oil back steel rolls and leather rolls once a week.

Cleaning.—Frame hands should not be allowed to brush off with an old broom or fan off the lint, for the lint will light on the roving and be carried through to the next process. There cannot be any specified rules for cleaning, as it must be governed by the product being made. However, cleaning should be at regular intervals and often enough to keep the frames in decent condition. Take out the steel rolls once every six months on coarse frames and once a year on fine frames and give the stands and roller a good cleaning. Clean the carriages once a year. Take out the spindles and wipe the bolsters ev-

ery two years. Go over the frames, line and level them at the time the spindles are out. The fixer should examine the frames occasionally to see if each part is in good working order. Frame hands should not allow singlings and doublings to pass to the process, as there is no excuse for their doing so. When creeling the ends should not be lapped over an inch. The hands, when piecing up an end, should be careful to break off the amount they roll in their hands, for if this is left in the piecing it is sure to be a hard end.

Crescendo.

Some Causes of Bad Cotton Spinning.

(Continued from Page 3)

bered that the card alone cannot give good and regular slivers to the drawing frame. Let us follow briefly the course of the cotton through the card and its treatment during the journey. In doing so, we find that a lap from the finisher scutcher is placed on the lap roller behind the card, and that this lap is passed over the dish feed to the feed roller from which it is struck by the taker-in and its mass attenuated about 3900 times. It is then taken from the taker-in by the cylinder and further attenuated to about 6000 times its original volume, at the

same time the fibres are combed out and cleaned by being drawn through the flats, the short fibre and causes irregular drawings of the rovings, dirt taken from the cotton by the flats being stripped from the flats by the stripping comb. The cotton is then deposited on the doffer, which travels at such a surface speed as will bring the mass of fibres back to a volume about a hundred times less than that of the original lap. It is then stripped from the doffer and deposited into a can in the form of a sliver.

Now, if we take this can of sliver and wrap it, taking note of the weight of say each fifteen yards of sliver, I venture to say you will be surprised at the variations, which in some cases are as much as 20 per cent, but, if the lap has been fed to the card at a uniform rate, the various parts of the card have been running at constant surface speeds, the settings have been the same, then what can be the reason for the variations? It can only be that the scutcher lap fed to the card contained the same variations, and it is very essential that great attention be paid to securing a lap which is not only regular in its total weight but regular in weight and thickness yard by yard. My ex-

perience has been that in the majority of cases too much is left to the scutcher attendant. Laps should be periodically unwound and tested for weight, yard by yard, and also unrolled before a good light to see very clearly how the cotton is lying in the width of the lap, and a strong hand should be kept in regard to the account which the attendant keeps on his wrap slate.

I well remember paying a visit to a mill in which a new blowing room plant had been installed, and the manager quite proudly showing me the record on the slate of the lap weighings which showed not more than a four-ounce variation in a period of six hours. I said it was too good to be true; he was quite annoyed at me saying this and said I could weigh any lap I cared to. I asked him to have the last six laps weighed; he did so, and I tell you the variations found were considerably more than four ounces. The manager, who I must say is one of the best I know, said he had made a practice of periodically wrapping the card, and drawing the slivers, the preparation bobbins, and the yarn at intervals, unknown to those whose duty it was to wrap, but had not thought it necessary to do the same with the laps.

Coming back to the cards, I would make the same remarks as I made in regard to the finishing machines, adopt a regular course of oiling and cleaning. And, again, the same with regard to the scutchers, taking great care that the oil does not run into the machines.

The question has often been asked as to what are the causes for uneven laps, both in weight and thickness, and also bad and ragged selvages. My note book tells me that one very common cause for the ragged selvages is oil running to the inside of the machine, causing lumps to gather and tear the edges.

Variations in weight and thickness arise from many causes, the principal one being uneven feeding (a very common cause), and irregular and sluggish working of the regulating motion. This can arise from dirt being allowed to gather around the moving parts. But there is another and more serious cause, and that is, having the motions between the pedals and cone strap set to give too great a movement. These parts should be so arranged that the upward and downward motion of the belt shall be between narrow limits, so as to prevent extremes in the speed of the cones.

It should be unnecessary for me to mention large and free outlets for the current of air generated by the fan, but, again, my book says that this point is often neglected.

I will now conclude by mentioning a very common experience I have had in almost all districts I have visited. Many mills never alter the setting of the beater or other parts of the scutcher, nor change the setting of the various drawing rollers, no matter what the variations in length of staple may be, from one season to another. Why this should be I cannot say, but I have often improved the spinning and the strength of the yarn by attention to this particular point.—Textile American.

SPINNING RINGS Best Quality

Guaranteed

Also Manufacturers of Drop Wires

The Connecticut Mill Supply Co.,

Torrington, Connecticut

Southern Representatives, PEARSON & RAMSAUR, Greenville, S. C.



Known For Their Quality

On account of their uniform high quality our travelers are recommended by the best spinners

U. S. Ring Traveler Company

AMOS M. BOWEN, Pres.

159 Aborn St.

Providence, R. I.

THE FELTON BRUSHES



We Make "The Little Green Comber Duster"

D. D. FELTON BRUSH COMPANY
Manufacturers and Repairers, ATLANTA, GA.

ARABOL GUM G.



- A. Attracts Moisture and Softens the Yarn.
- R. Retains the Moisture, Making the Yarn More Pliable.
- A. Adds Strength and Elasticity.
- B. Boils Thin; Thereby Penetrating the Yarn.
- O. Opens the Yarn, Preventing Break-Backs.
- L. Lays the Fibre.

Trial Orders Shipped on Approval—Especially Valuable in Hot Dry Weather.

ARABOL MANUFACTURING CO.

100 William Street, New York

CAMERON MacRAE Southern Sales Agent CHARLOTTE, N. C.

Want Department

Want Advertisements.

If you are needing men for any position or have second hand machinery, etc. to sell the want columns of the **Southern Textile Bulletin** affords a good medium for advertising the fact.

Advertisements placed with us reach all the mills.

Employment Bureau.

The Employment Bureau is a feature of the **Southern Textile Bulletin** and we have better facilities for placing men in Southern mills than any other journal.

The cost of joining our employment bureau is only \$1.00 and there is no other cost unless a position is secured, in which case a reasonable fee is charged.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern textile industry.

Machinery For Sale.

One set Dry Cans consisting of nine cans.

One new Textile Machinery. Co.'s Tenter, 40 feet by 110 inches.

One wide Beaming machine (new).

One 40-in. Folder with doubling attachment.

One 5 1/2-in. K. W. Dynamo with switch board.

Five Dye Vats.

Address: Mrs. I. Littman, Salisbury, N. C.

Wanted to Buy.

Wanted to purchase 125 reeds 666 dents on 41 inch, 123 sets harness eyes spread on 41 inch. Address all replies to the Southern Textile Bulletin, Charlotte, N. C.

For Sale.

1 Oswald Lever Quiller, 60 Spindles.

3 Lowell Twisters, 3-in. Ring, 5-in. gage, 96 Spindles each.

3 Draper Twisters, 2 1/4-in. Ring, 6-in. Travis, 120 Spindles each.

2 Lowell Section Warpers.

1 Entwistle Balling Attachment.

This machinery is in good running orders. Brander Cotton Mills Corporation. Concord, N. C.

WANT position as superintendent or overseer of carding in large mill. Experienced on both white and colored goods. Satisfactory references. Address No. 558.

WANT position as superintendent of either yarn or weave mill. Have had long experience. Held present job three years. Good references. Address No. 559.

WANT position as overseer of carding. Now employed but want larger room. Have good experience in first-class mills and can furnish good references. Address No. 560.

WANT position as superintendent or superintendent and manager of either yarn or cloth mill. Am experienced on hosiery yarns. Competent and reliable. Can invest some capital in good proposition. Address No. 561.

WANT position as overseer of weaving. Now employed but want larger job. Have had experience on many lines of goods and can give satisfaction. Good reference. Address No. 562.

WANT position as overseer of spinning or winding and spooling and slashing. 15 years experience. Now employed. Can give good references. Address No. 563.

WANT position as overseer of weaving. Have had long experience on both white and colored goods and can furnish good references. Address No. 564.

WANT position as overseer of cloth room. Have been overseer at present mill since it started and have given satisfaction but want larger job. Good references. Address No. 565.

WANT position as superintendent or manager. Have had long experience especially on colored goods and can give satisfaction. Good references. Address No. 566.

WANT position as overseer of cloth room or finishing. Age 36. Strictly temperate. Have had 10 years experience finishing gingham and dress goods. References will be furnished. Address No. 567.

WANT position as superintendent. am now employed but am not satisfied with location. Can furnish first-class references as to character and ability. Address No. 568.

WANT position as overseer of weaving. Now employed and giving satisfaction but prefer to change. Can furnish best of references. Have had long experience. Address No. 569.

WANT position as superintendent or overseer of carding. Have had long experience including that of machinery erection. Can furnish good references from former employers. Address No. 570.

WANT position as overseer of cloth room. Now second hand in cloth

room running 80 to 100 styles. Good manager. Age 25. Strictly sober. Best of references. Address No. 571.

WANT position as overseer of spinning or carder and spinner. Would take place as second hand in large mill. 11 years experience as overseer. Good habits, age 34, married. Can furnish best of references. Address No. 573.

WANT position as master mechanic. 23 years; reference. Strictly sober. Good references from present and former employees. Have family of spinners and doffers. Have seldom changed position. Address No. 574.

WANT position as overseer of carding. Am experienced on both coarse and fine numbers, white and colored. Prefer Georgia or South Carolina. Sober. Good manager of help. Satisfactory references. Address No. 575.

WANT position as superintendent or overseer of carding. Have had long experience and am rated as first-class carder. Will be glad to furnish references from former employers. Address No. 576.

WANT position as overseer of spinning, winding and twisting. 20 years experience in mill. 7 years overseer. 2 years assistant superintendent. Sober. Good manager of help. Now employed. Good reference. Address No. 577.

WANT position as carder or carder and spinner. Now employed but desire to make a change on account of location of mill. Can furnish first-class references both as to character and ability. Address No. 578.

WANT position as overseer of carding or spinning. Have long practical experience and can give good references. Can change on short notice. Correspondence confidential. Address 579.

WANT position as overseer of weaving. Prefer Draper job, but experienced on box looms and dobies. Have run large rooms and always given satisfaction. Good references. Address No. 580.

WANT position as overseer of large card room or assistant superintendent. Now employed as superintendent of small mill but would change for larger job. Long experience and good references. Address No. 581.

WANT position as superintendent of small mill or assistant superintendent of large mill or weaver and designer. Long experienced on both white and colored, plain or fancy goods. Fine references. Address No. 582.

WANT position as overseer of carding in good mill in N. C., S. C., or Ga., at not less than \$3.00 per day. Age 38. Married. Best of references from present and former employers. Can change on 10 days notice. Address No. 583.

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WANT position as superintendent. Have had long experience and given entire satisfaction. Reason for changing is for better salary. Age 45. Married. Member of church. Strictly sober. Experience has been from ground up, on both white and colored work. Address No. 584.

WANT position as overseer of carding. 44 years old. Am strictly sober. Now employed, but can come on 15 days' notice. Good references from present superintendent. Address No. 585.

WANT position as superintendent or overseer of carding or carder and spinner. Good references both as to character and ability. Address No. 586.

WANT position as overseer of weaving. Have had long experience and can furnish best of references from former employers. Prefer Draper job. Address No. 587.

WANT position as overseer of spinning. Now employed, but want larger job. Have had long experience on both coarse and fine numbers. Address No. 588.

WANT position as superintendent at not less than \$1,500. Now employed and giving satisfaction but prefer a more modern mill. Can furnish best of references. Address No. 589.

WANT position as superintendent or overseer of weaving. Have had long experience and am now employed but prefer healthier location. Can furnish satisfactory references. Address No. 590.

WANT position as overseer of carding. Have had long experience and can furnish good references both as to ability and character. Can get results. Address No. 591.

WANT position as superintendent. Have been superintendent of large mills and always given satisfaction. Held last position many years and had satisfactory reason for resigning. Good references. Address No. 592.

WANT position as superintendent. Have had long experience and am now employed. Especially strong in carding department but experienced in all. Good references. Address No. 593.

(Continued on next Page)

(Continued from last page)

WANT position as overseer of carding at not less than \$3.00 per day. Have held present job two years and am giving satisfaction, but prefer to change. Good references from present and former employers. Address No. 594.

WANT position as manager or superintendent. Have had long experience in both positions on plain and fancy goods. Can furnish best of references from former employers. Address No. 595.

WANT position as superintendent. 12 years experience as overseer of weaving and assistant superintendent. Capable and qualified to run mill successfully. Can furnish excellent references. Address No. 596.

WANT position a overseer of weaving in North or South Carolina. Experienced on both heavy and fine goods. Expert Draper man. Have good references. Address No. 597.

WANT position as overseer of spinning. Experienced on both coarse and fine numbers and can handle large room. Good experience and fine references. Address No. 598.

WANT position as overseer of spinning. Now employed but want larger job. Have had long experience and have run large rooms. Good references. Address No. 599.

WANT position as overseer of weaving. Now employed as second hand on fine fancy cotton goods. Experienced on Draper looms. Can give good references from present and former employers. Address No. 601.

WANT position as overseer of weaving. Experienced on both plain and fancy goods and can furnish good references both as to character and ability. Address No. 601.

WANT position as overseer of weaving. Now employed and giving satisfaction but want larger job. Have had long experience and can furnish fine references. Address No. 602.

WANT position as overseer of weaving. Experienced on chevots, chambrays, sheetings and drills. Married. Age 32. Now employed. Good references. Address No. 572.

WANT position as overseer of carding. Age 36. Married. Sober. Have been in card room 17 years. On present job 2 years. Good references. Address No. 603.

WANT position as overseer of weaving at mill which has good churches and schools. Now employed but want better location. Experienced on both white and colored goods. Address No. 604.

WANT position as superintendent or overseer of weaving in large mill. 14 year experience as overseer and 2 years as superintendent on both white and colored work. Age 43. Satisfactory references. Address No. 605.

WANT position as carder or carder and spinner. I guarantee to make work run good. My work is my reference. Address No. 606.

WANT position as master mechanic and machinist. Have had 12 years practical experience. Can furnish best of references. Can come promptly. Address No. 607.

WANT position as overseer carding at not less than \$2.50 a day. Married. Experienced on English and American machinery and on white and colored work. Good references. Address No. 608.

WANT position as engineer and mechanic on small job, or one as only engineer. Married. Temperate. 26 years experience. Good references. Address No. 609.

WANT position as superintendent or overseer carding in a good mill. Have had long experience and can give good references as to character and ability. Address No. 610.

WANT position as superintendent. Have been in present position for 14 years. Can handle any class of work, fine or coarse, white or colored, plain or fancy. Good references. Address No. 611.

WANT position as overseer of spinning. Married. 15 years spinning room. 5 years as overseer. Good references. Address No. 612.

WANT position as overseer spinning in a small mill or second hand in a large mill. Strictly sober and of good character. Married. 24 years of age. Good manager of help and hustler for production. Now employed as second hand in 55,000 spindle mill, but wish to change on account of location. Reference from present employers as to ability and character. Address No. 613.

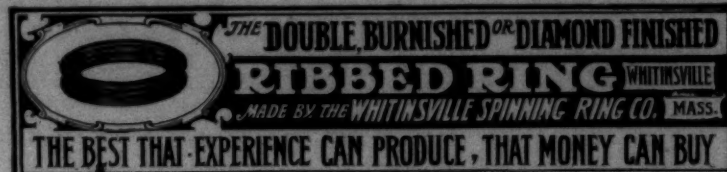
WANT position as overseer carding in a mill of about 12,000 spindles. 30 years old. Married. Strictly sober. 14 years experience in the mill. Can give good references. Address No. 614.

WANT position as overseer of carding or spinning or both. Will take carding in a small mill or spinning in a large mill. 33 years old. Married. Long experience in the mill business. Can furnish good references. Address No. 615.

WANT position as superintendent. Have had many years experience and can furnish first-class references from former employers. Sober, reliable and good manager of help. Address No. 616.

WANT position as superintendent of a weave mill or card room in a good mill, in a healthy locality. Salary no object until I show what I can do. Wish to change on account of the health of my family. Address No. 617.

WANT position as overseer spinning. Have had experience on fine and coarse numbers, carded



Where A Textile Plant Will Prosper

In a county seat town of Northern Virginia a good opportunity for the location of a textile factory is offered. There is available unemployed female labor.

Good power and quick transportation facilities to New York are other advantages.

Details may be had by referring to File 47,177 and writing

M. V. Richards, Land and Industrial Agent

Room 129

SOUTHERN RAILWAY

Washington, D. C.

and combed ayrens, warp and hosiery. Married. 32 years old. Now employed as overseer, but want larger job. Good references furnished. Address No. 618.

WANT position as roller coverer. Can also mend belts. Have had 12 years experience in roller covering and belt work. Good references. Address No. 619.

WANT position as overseer of weaving. Have had long experience on both white and colored work and can furnish first-class references. Address No. 621.

WANT position as overseer of carding. 31 years old. Married. Good habits and a hustler for production. Only reason for wanting to change is larger job. Can give good references. Address No. 622.

WANT position as superintendent in small mill or carder in large mill. Can give A-1 references. Age 39. 25 years experience. Held last job for six years. Address No. 623.

WANT position as cotton mill superintendent. Have had 30 years experience as such on all grades of cotton duck. Can come on short notice. References if required. Address No. 624.

Analysis of Cotton Spinning Returns Indicate Satisfactory Mill Operations.

The Wall Street Journal makes the following analysis of the Census Bureau's latest report on the cotton supply, consumption and active spindleage:

Spinners' consumption of cotton is now the most noteworthy factor in the development of the cotton situation. The Census Bureau's return of 482,198 bales consumed during December is almost identically the

total taken during November, and compares favorably, considering that the holidays and other curtailment in New England were influential in preventing an advance. The total above compares more favorably with December's consumption of last year at 445,287 bales. Then the December consumption was 30,000 bales less than the preceding November, compared with only 400 bales less in the month just passed.

These consumption returns total 107,000 bales higher since the beginning of September than in the preceding year. The exact figures were 1,977,471 bales for the four months ending with December. A year ago the corresponding total was 1,870,019 bales. This shows that the two years are quite on the same basis of consumption, the current season having the advantage in the total consumed of only about one week's consumption on the average.

From another standpoint, the facts disclosed by the December report afford clear proof of progress. The active spindles still continue to increase from month to month in the main. There were 847,917 spindles added since last December to the active list. December alone, which was none too favorable, put 53,933 more spindles to work than in November. For the first time the country has crossed the 31,000,000 spindle mark.

Spinners themselves are better supplied than at the beginning of 1913. In manufacturing establishments, on Dec. 31 there were 86,000 bales more than a year ago, while independent warehouses had in round numbers 136,000 bales more than the previous season's holdings.

Hell's Annex.

Salan was reading reports from his aids.

"Terribly overcrowded in Hades," he remarked. "Nothing to do, I guess, but annex Mexico. That's the nearest thing to hell I know of." —Detroit News.

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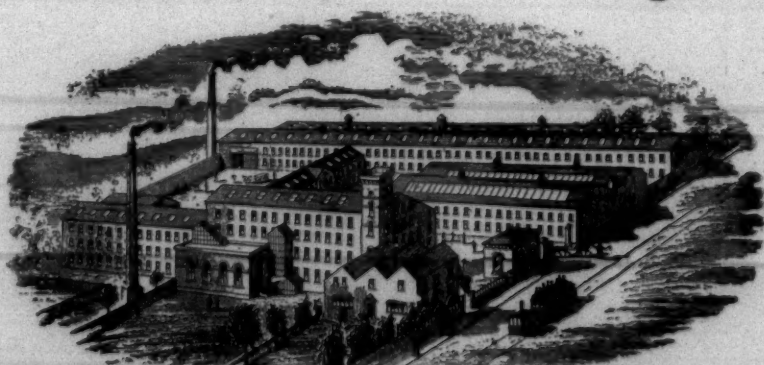
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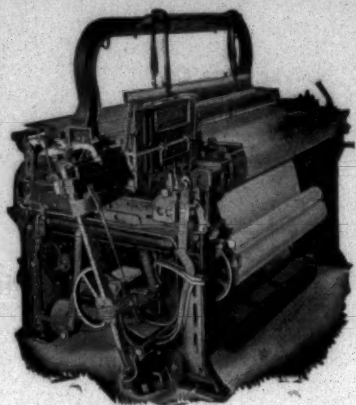
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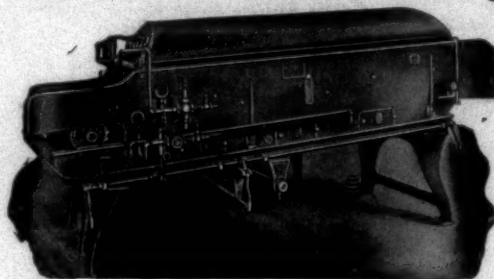
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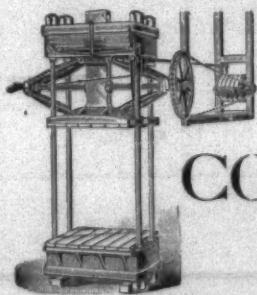
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